

# THE INFO INFORMER

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## "1984"

### Computer and Research Services Division

George Orwell's year has finally arrived. In keeping with his general scenario, prospects in the data processing and information area for the Alberta Solicitor General are for a turbulent year.

This year we will be implementing new computer systems in Motor Vehicles (MOVES), Corrections (Young Offenders), Personnel (PIMS) and Finance and Administration (MSA General Ledger and Encumbrance). Each of these systems has a major operational impact on the main "user" Division (CRSD) and has less direct effect on the other Divisions. The online and distributed nature of these systems has the effect of spreading the impact to all locations serviced by, or servicing our Department. When implementation of these systems is complete, there will be 400 locations in Alberta that have a direct leased line or dial-up connection to one or more of these systems. In addition, all police forces across Canada have access to Motor Vehicle and Corrections system records through the CPIC (Canadian Police Information Centre) network.

This proliferation of computer equipment is making access to data much faster and easier than ever before. An office automation study was initiated last year to maximize use of this data and equipment locally. This study is addressing the areas of decision support systems, local processing power, data capture/retrieval, as well as

the typical office support functions such as word processing.

The less direct effect of distributed data access results from the wider appreciation of what data is available and what can be done with this data. The requests for time series analysis of historical data in support of program evaluation or trend projections is, and will be, increasing. The demands for summary statistics on all types of data as a tool in managing daily operations will also increase. Demand will grow for more readable and condensed presentation of information in the form of graphics and interpretive management reports. Technology is allowing distribution of data in many forms to the people responsible for the operations which generate the data. Use of this data will demand a much closer tie between the operations staff and the data processing and information specialists administering and massaging the data.

A major factor superimposed on our current environment is a tighten-

ing of budget dollars for both data processing and operations. Shortage of operations dollars tends to push organizations toward automation in an attempt to save man-years and use information to better manage existing resources. Reduction in data processing dollars makes it difficult to respond to this demand. The result will be closer scrutiny of how money is spent, typified by a pre-defined and committed pay-back for all research and development and a more stringent division between operational necessities and "nice-to-haves". Advances in technology are reducing the cost of computer equipment and the economic downturn has temporarily reduced consulting fees, both of which have helped counterbalance the budget reductions. After a period of adjustment to the "new" environment the results will be positive. A closer operations/information relationship and more discriminatory planning will result. 1984 will indeed be a period of re-alignment.

Contributions to THE INFORMER are welcome from our readers, particularly regarding announcements, articles, or events which affect a program area within the Alberta Solicitor General. Articles offered for publication or requests to be added to our distribution list should be directed to:

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CONTENTS:	Page
'1984' .....	1
BASIC COMPONENTS OF DATA COMMUNICATIONS.....	3
MOTOR VEHICLE DATA PURIFICATION PROJECT ....	7
STRESS & THE VDT USER (III)	9
THINGS TO DO WHEN THE SYSTEM GOES DOWN .....	11
YOUNG OFFENDERS INFORMATION SYSTEM .....	12
PAYMENT OF ACCOUNTS SYSTEM.	13
OVERVIEW OF CRSD PROJECTS CORRECTIONS PROJECTS ....	15
MOTOR VEHICLES PROJECTS .	15
LAW ENFORCEMENT PROJECTS	16
DEPT. SUPPORT PROJECTS ..	16
1984 - PUNNILY ENOUGH.....	17
FOR YOUR INFORMATION ....	17



## BASIC COMPONENTS OF DATA COMMUNICATIONS

### Systems Support Branch Computer and Research Services

Several large automated systems within the Alberta Solicitor General have provided many of the Department's employees with exposure to the computer environment. We know what a terminal is and how to obtain a driver's abstract or information on an inmate. But exactly what happens when you hit the Enter button? Who and what is involved when you ask for that licence plate number or that inmate profile? What goes on when you can't sign on to the system?

As part of several articles on Data Communications, an attempt will be made to answer some of these ques-

tions and to provide you with a better understanding of the communications environment.

This article will discuss the basic components involved in data communication on a non-intelligent network, the network most commonly used by our current systems. Reference will be made to Figure 1, briefly describing each device and cable that links your terminal to the Host Computer. This article will also pinpoint whose responsibility it is when something goes wrong with the communication system.

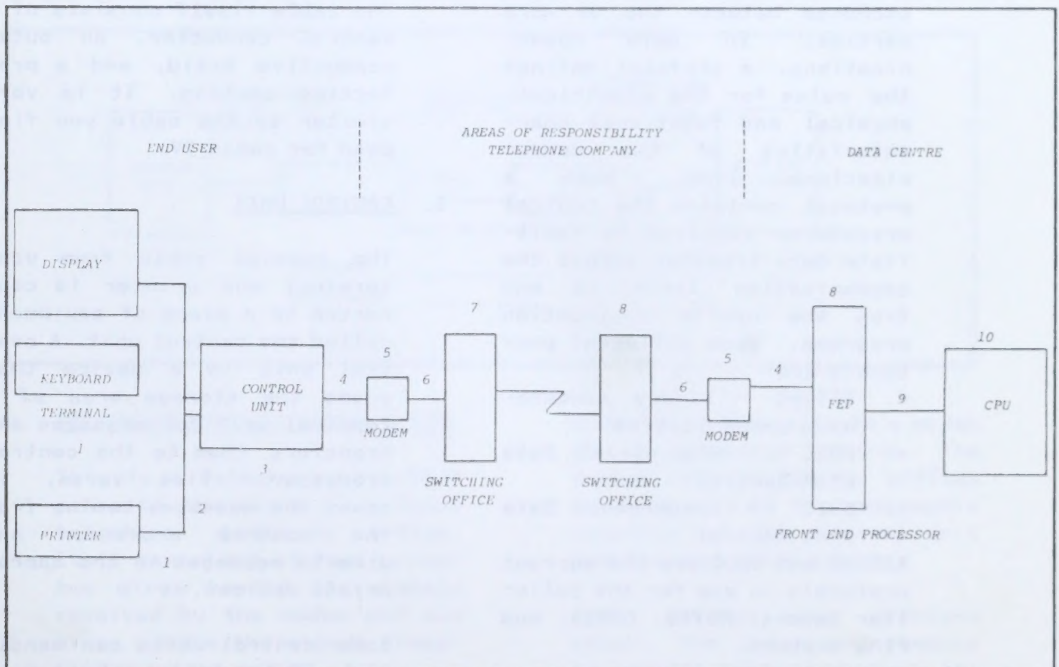


Figure 1.

## 1. THE TERMINAL

The most familiar component is the terminal. This device is composed of a keyboard and display screen. It allows a person to send or receive information from the main computer. Terminal size and capability varies with the model or purpose of the unit. Most units on the market today are designed according to IBM protocols and standards so that terminals can be interchangeable.

Upon pressing the enter button, the data you have keyed onto the screen is converted to a digital signal format according to a predefined protocol. A protocol is a set of rules that must be obeyed to ensure an orderly information exchange between two or more parties. In data communications, a protocol defines the rules for the electrical, physical and functional characteristics of the communications link. Such a protocol contains the control procedures required to facilitate data transfer across the communication lines to and from the user's application programs. Some different protocols are:

- BISYNC - Binary synchronous communication
- HDLC - High level Data Link Control
- SDLC - Synchronous Data Link Control

BISYNC and SDLC are the current protocols in use for the Solicitor General MOVES, COMIS, and PIMS systems.

Once the data has been transmitted, the input inhibited light appears and stays lit until the host computer acknowledges the transmission.

During this period, the operator is unable to key in any new information. When the input inhibited light goes off the terminal is ready for the next command.

The printer is another device located at the user site. Its purpose is to print information directed to this device. It differs from the terminal in that it can only receive information.

## 2. COAXIAL CABLE

Attached to the back of each terminal and printer is a piece of wire called a coaxial cable. This cable allows messages to be transmitted in digital electrical impulses from the terminal to a control unit.

The cable itself consists of a central conductor, an outer conductive braid, and a protective coating. It is very similar to the cable you find used for cable TV.

## 3. CONTROL UNIT

The coaxial cable from your terminal and printer is connected to a piece of equipment called the control unit. A control unit is a device that scans the storage area of a terminal unit for messages and transfers them to the central processor. Vice versa, it scans the messages coming from the central processor and directs messages to the appropriate devices.

Some control units can handle up to 32 terminals and printers at a time. If your terminal is attached to a control unit which has a large number of active devices, you may experience a slower response than if



it was attached to a control unit with fewer devices.

#### 4. EIA CABLE

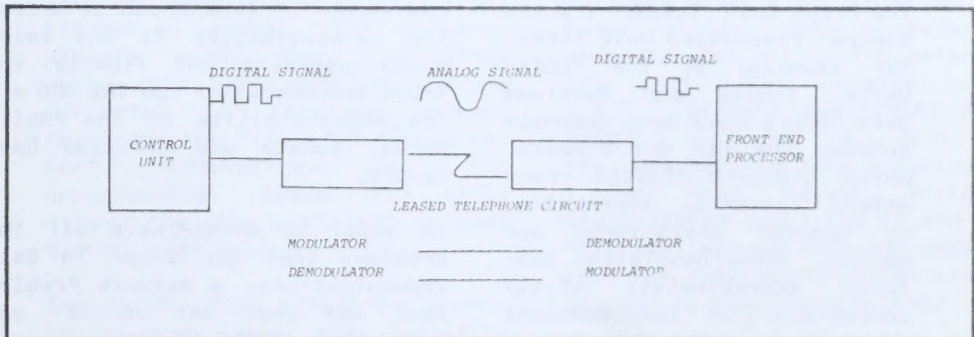
As we trace back from the control unit, we come across a grey cable, the "EIA cable" (a standard size cable adopted by the Electronic Industries Association to ensure uniformity of interface data communication equipment and data processing terminal equipment). This cable allows messages to be transmitted between the control unit and the next device called a modem.

#### 5. MODEM

A modem is a device that converts the digital signal from the control unit to an analog format or vice versa. This

signal conversion is necessary as the most common leased lines require analog signals, whereas the control unit and front end processor operate using digital signals. The modem also performs error checking functions on the data transmitted and, if an error is found, will ask for the message to be repeated.

When the modem converts the digital signal to analog, it is called modulation. When it converts analog to digital, it is demodulation. Hence, the word modem (modulation/demodulation). The following diagram displays the difference between analog and digital signals:



#### 6. TELEPHONE CIRCUIT (LOCAL LOOP)

This is a telephone wire that connects the modem to a local telephone switching office. It is comprised of four wires: two wires handle the signals received by the modem and two wires handle the signal transmitted by the modem.

#### 7. SWITCHING OFFICE

The switching office is the focal point for connecting the

modem at a user site to a modem at the computer centre. The number of switching offices used depends on the geographic location of the control unit and the computing centre.

When severe line problems occur, the telephone company is usually contacted since its staff can monitor the line from their switching offices and make the necessary repairs.

## 8. FRONT END PROCESSOR (FEP)

The front end processor is a device that handles all the communication for the Host Computer. Similar to a Control Unit, it receives and sends messages to and from the Host to all attached terminals and printers. It attempts to resolve any communication errors and translates the messages into a format that the Host can process. It also checks the condition of the communication line and notifies a console operator when the line fails. The FEP has other duties of a more technical nature that will be looked at in a future article.

## 9. HIGH SPEED CHANNEL

This is a wire which transfers large amounts of data between the Front End Processor and the Central Processing Unit (CPU). For example, at the Public Works, Supply and Services Data Centre they have channels between the FEP and Computer which transmit 200,000 characters (numeric, alphabetic, or special characters) per second. This newsletter contains approximately 60,000 characters, so the complete newsletter would be transmitted from the FEP to the computer in less than a second.

## 10. CENTRAL PROCESSING UNIT

This is the last stop of our communication network and is the heart of any computer system. The CPU/HOST controls all or part of a user application network, such as PARTS, COMIS, ISO, CICS. It allows a termi-

nal in Calgary to do a licence search on a vehicle or lets a terminal in Peace River access information on an inmate, by connecting the request with the data. it seeks and subsequently responding.

In summary, we have identified each major device and cable and discussed their main functions in providing Data Communication. We explained that terminals have two-way communication whereas printers only have one. The Control Unit transfers data in a logical method to and from the Host and the telephone company connects the user site to the Data Centre. Finally, the Data Centre provides the access to any application running on the Host. Yet, who is responsible when problems occur?

For terminals, printers and control units, the responsibility is the vendor's; from modem to modem, the responsibility is the telephone company's; and finally, the front end processor and the CPU are the responsibility of the Public Works, Supply and Services Data Centre.

In order to co-ordinate all the problems that can occur in Data Communications, a Network Problem Desk has been set up for our Department. It is the responsibility of this unit to take all problem calls and resolve the problem situation as soon as possible. They are responsible for contacting Public Works, the Telephone Company or the equipment manufacturers and getting back to the user with the resolution. The Problem Desk can be reached at 422-1238. So, next time you experience a problem, give them a call.



## MOTOR VEHICLE DATA PURIFICATION PROJECT

### Computer and Research Services Division

The development of a large computer system usually has a significant amount of preparatory work associated with it, and our Motor Vehicle System is no exception. One of the largest tasks we have had to perform in order to prepare for implementation of the new Motor Vehicle System is data purification, or file clean-up.

Upon initial analysis it appeared that the files comprising the old system were in reasonable condition. For example, we mailed out two million vehicle renewal notices and had very few post-office returns; driving demerits were always given to the correct people; and, we didn't receive many complaints from the police who used our data through the CPIC network. Detailed data such as vehicle identification number (VIN number), vehicle model, body and style codes, etc. were constantly being corrected on returned renewal forms and the file of "non-clearable" transactions was not unmanageable. Given this situation, the data purification task did not seem major.

The purification effort has proven to be much larger than initially expected and, in retrospect, one might say it was predictable. The basic differences in file configuration between the old and new Motor Vehicle Systems have necessitated a very precise and thorough approach to "cleaning up" the data.

The old system's data is stored on three separate files: the Vehicle Master file, the Operator Master file, and the Driver Demerit file. In comparison, the new motor vehicle system consists of tightly integrated files--all records pertaining to a single client (indi-

vidual or company) are linked. It is therefore extremely important that the key fields (which are the basis upon which the records are linked) be identical for conversion. Items such as address, company name, etc. did not have to match exactly in the old system. The administrative staff in client companies did not mind that their vehicle registrations had their company name spelled many different ways as long as it was identifiable for police checks and the post office. Also, few people stopped to check that the vehicle identification number on their vehicle registration matched that on their vehicle or fit the vehicle type. When we do our data conversion and try to combine the three existing master files into one database we must be concerned with these details. Unfortunately, the computer has difficulty determining that, for example, AGT, A.G.T., ALBERTA GOVERNMENT TELEPHONES, ALTA GOV TEL, ALTA TEL, etc. are all the same organization, or that MELTON BUILDING, 10310-JASPER AVE., 103 ST AND JASPER, etc. are all the same address. Thus the data purification project started in the spring of 1982.

The 2.5 million records have been "cleaned" over the past couple of years by a staff of 15-20 terminal operators and by the regular Motor Vehicle Operations Verification staff and one or two systems analysts. The matching of key fields among the files is reaching a high percentage (in the high 90% range), and is being maintained at that level through the current staggered vehicle registration renewal process.

The expense and effort expended on this "clean-up" project has been

very large. Although the project has had a low profile compared to the development of the new system, the new system's implementation would be impossible without it--initial credibility would also be damaged if this task was not performed properly. A technical overview of the data purification project follows.

When the Motor Vehicle System project (MOVES) was designed, the CLIENT subsystem was the focal point that provided the main linkage to the various other subsystems currently being developed. A client who owns a vehicle is identified in one of three ways: individual owner, joint owner (two or more people owning the same vehicle), and organization owner (company). Each client is assigned a unique MVID (Motor Vehicle Identification Number). In the cases where multiple vehicles are owned by the same individual, joint ownership or company, only one MVID is assigned and all of the vehicle information (which is contained in the vehicle subsystem) is linked to the client via the MVID number. The mandatory information required in creating any type of client MVID is: name, address(es), postal code, and telephone number. Additional information required for individual and joint client MVID's is: sex, height, weight and date of birth.

The present Motor Vehicle System contains this information, but in the cases of individuals and joint owners, it is contained on two files-- the Vehicle Master file and the Operator Master file. The common key fields between the two master files are the name of the owner, operator licence number, and the operator's date of birth. In the case of company owners, all the information is contained on the Vehicle file.

One of the primary objectives of the data purification group was to ensure that the Vehicle Master file contained the correct operators licence number, date of birth and name as cross-matched to the Operator Master file for individual and joint owners. The present computer system is being utilized to match as many records as possible with the information presently contained on the two files. For the vehicles that cannot be computer matched, the data purification group, via online terminals, corrects the key fields that were missing data or had invalid data. Other selected fields such as address are also being corrected.

The vehicles that currently belong to companies cannot be cross-matched to the Operator Master file because the operator licence number, date of birth, and name fields are not applicable to a company. With the single client MVID concept for organizations, only one client record exists for multiple vehicles. Identifying all the vehicles belonging to any one company (client) was the problem that spawned the Fleet ID number concept. The Fleet ID number is defined in two parts: a five digit main number that is unique for each existing company on file, and a two digit branch number that is unique for multiple branches/departments within the same company. With all vehicles assigned a Fleet ID number, a common identifier is available for the conversion to the MOVES project. The Fleet ID is presently being used for the staggered registration renewal. A list of vehicles will be forwarded to the companies instead of regular renewal forms. The list will then be verified by the client and it will be processed as a bundled renewal registration.



## STRESS AND THE VDT USER (PART III)

### Research and Information Branch Computer and Research Services Division

While most people believe that the office environment is a safe and healthy place, the reality is that this is not always so. Environmentally caused office hazards aside, a key problem confronting people working in offices is stress.

While stress can affect employees for various reasons, particular concern has been expressed over the relationship between stress and video display terminals (VDTs). It has been widely reported that a significant fraction of VDT operators exhibit and experience unusually high, and even debilitating levels of stress after performing for an hour or more (depending on individual sensitivity) at a display terminal.

This article will look at what causes stress in the office, how it affects users of VDTs in particular and what can be done to alleviate the effects of stress.

Factors contributing to stress include: environment, job design, work organization, labour or management problems, and socio-economic conditions.

However stress is not to be avoided at all costs. In fact, it can actually assist people to perform better. While stress may be helpful for some people, it can be quite detrimental for others depending on their specific threshold of resistance to stress. This is the result of a number of factors such as heredity, personality, learning experiences, etc. These factors affect how people perceive and react to stressful situations. While some people respond well to pressure on the

job, others become flustered, make mistakes, and consequently are non-productive.

Considerable research has been conducted to establish the cause of stress amongst VDT users. These studies show that a VDT and its associated work environment form a sophisticated system with many interacting components. Imbalance between the components can cause the operator to experience stress which, over a period of time, may result in adverse health effects.

Wallach, in a 1982 study on the effects of cathode video displays on human health, points out that stress from any source, whether psychological or physiological, can be cumulatively additive in its impact on functions of the central nervous system and neuromuscular co-ordination. In fact, these two types of stress (psychological and physiological) are so closely interrelated and interactive that any change in one is inevitably reflected in the other. The effects of stress can be divided into two groups:

#### 1. Physical Characteristics

- headaches
- backaches
- ulcers
- high blood pressure
- insomnia
- skin rashes
- increased infections

#### 2. Psychological Characteristics

- anger
- depression
- frustration
- aggression
- withdrawal
- sexual difficulties
- irritability

Long term effects of stress can create such problems as hypertension and high cholesterol which can increase the risk of heart disease, ulcers, migraine and asthma. There is also some evidence that cancer may be associated with stress.

A recent theory expounded by two Canadian researchers, Frank Zincone and Eric McLuhan, relates VDT-induced stress disorders to a clash between the right and left hemispheres of the brain. McLuhan notes that "Usually, one or the other side of the brain is dominant. When someone is forced to use both sides together, what you get is a war in the brain. The result is severe stress." These communications specialists point out that the images on the video screen stimulate the visually controlled or right side of the brain while the language or content appeals to the left or verbally controlled side of the brain. Their research, based on studies conducted among six companies utilizing VDTs, found that over 80 per cent of the people they talked to "described a sense of disembodiment after being on the machine for a period of time".

While more research is needed to support the brain clash theory, sufficient evidence exists to show that health problems associated with working on VDTs are often the combined effects of several environmental stress-causing factors such as poor machine design and maintenance, incorrect office layout and lighting, and too much time at the machine. Under optimal conditions, the working environment designed for the productive comfort of the VDT operator provides both stimulation and relaxation in the workplace. The key to maximizing operator productivity is having workstations designed for the greatest possible flexibility:

chairs should have adjustable seat and backrest heights; the keyboard height and screen height and position should be independently adjustable; the operator should be able to adjust screen intensity.

Increasing variety in the job, task rotation, and assigning more responsibility to the operator are also methods by which to reduce stress and increase productivity. It is also important that VDT users make an effort to become aware of sources of stress that affect them. With this knowledge, they can better understand the interplay between themselves and their work and take measures that will counterbalance any disharmony.

Fitness, through regular exercise, increases resistance to health problems, desensitizes stressors, reduces anxieties and provides a socially acceptable form of relieving frustrations. Friends, family, and hobbies are also known for their effectiveness as support systems. Taking regular holidays is also beneficial for reducing the effects of stress.

If stressors cannot be eradicated, other coping strategies such as assertiveness training, relaxation exercises, meditation and biofeedback have been found effective in alleviating the physiological impact of stress. If, however, the situation proves overwhelming for a person, then professional help should be sought.

In conclusion, if a person experiences problems due to VDTs, the problems can usually be ameliorated with simple changes. Both employers and employees owe it to themselves to make use of all avenues that will work towards solving problems with VDTs and making their worklife more enjoyable and productive.



An abridged article from Computerworld

If your system is up 98% of the time and you are diligent, very hardworking and responsible, then this article is not for you. If, however, your system hiccups, coughs, has frequent schizophrenic fits and enjoys restful afternoon naps, I offer advice on ways to fill the empty, boring hours that you might have to spend documenting, reading technical journals, and otherwise improving your data processing skills:

- Have a good laugh by reading management's idea of a five-year EDP plan.
- Use the lovely squares, circles and other symbols on your template to achieve a masterpiece of high-tech art.
- Call Dial-a-Joke.
- Take the stress test given in any fitness magazine and discover that you checked "yes" to every question, and your cumulative score indicates an imminent breakdown.
- Call Dial-a-Prayer.
- Phone your technical support group and discover (again) the line is still busy.
- Complain about your salary.
- Update your resume.
- Do isometric exercises and hope no one sees you twitch.
- Water the plant on your desk that looks as though it has had a long, lingering illness.
- Get your eighth cup of coffee.
- Throw out all 224 compiled versions of the same program that you were keeping "just in case".
- Clean out your desk, and remove all old, rotting chocolate chip cookies that are sitting next to your Adidas running shoes.
- Improve your "Globe and Mail" crossword skills after stealing a dictionary from the department secretary.
- Examine the local DP salary survey, and discover what you already know: you're underpaid.
- Discover all the neat toys you can make with paper clips.
- Reflect on the fact that major drug dealers never have to go through this, and that each owns a Mercedes Benz. Consider a major career change.
- Do weight-lifting exercises using 5-lb. quality assurance manuals.
- Revile the specs of the systems analyst.
- Make paper planes out of the standards manual.
- Denigrate the programming practices of your predecessor.
- Construct a Frisbee out of a disk drive.
- Rejoice in the fact that with the system down, you have the perfect excuse for not meeting the deadline you weren't going to meet anyway.
- Crumple the systems analysts' flowcharts into little balls, and then see how many you can toss over your left shoulder into the wastebasket.
- Condescend to sit with an end user and discover that the eight programs you've spent months working on do not in any way, shape, manner or form produce meaningful results.
- Leave the office, and take a brisk walk in the sunshine. Upon your return, discover that the system came up as soon as you left, but is now down again.
- Dive into the pyramid swamping your "in" box, and uncover all

of last year's technical updates.

- Browse through the standards manual, and discover that not one program you've written conforms with those standards.
- Detach some of the pretty, coloured wires from inside your terminal, and see if you can put them back together again.
- Reach out and touch someone long distance, using any extension in the department (other than your own).
- Cast The Wizard of Oz using members of your department. It should be easy to find those without brains, without hearts and those who need courage simply by examining the list of executive officers.
- Compose a Fantasy Island script on career pathing in your organization, bearing in mind that there are some miracles even Mr. Roarke cannot perform.
- Create an attractive toy for your cat, dog, or gerbil by

stapling backup floppy disks together.

- Examine the date on your IBM manuals, and find out that they are six years old.
- Uncover the hidden treasures in the pile beneath your desk. Discard anything that bites you.
- Remove all catsup, salt, pepper, and sugar that is over two years old from your work space.
- Remove any small, black wiggling dots from the jar of Coffee Mate.
- Consult your daily horoscope in the newspaper, and discover that new opportunities await. Then call your local headhunter.
- Take your corduroy suit to the cleaners for its yearly pressing.
- Do the exercises in Tom Jackson's The Perfect Resume, listing all the accomplishments you could have if the system was up.

## YOUNG OFFENDERS INFORMATION SYSTEM

### **Operations Systems Branch Computer and Research Services**

The Young Offenders Act has been passed through the federal parliament and is expected to receive royal acclamation for an implementation date of April 1, 1984. The Alberta Solicitor General is embarking on the first stage of a computer based information system to assist in carrying out its responsibilities under the Young Offenders Act.

As part of its responsibilities, the Alberta Solicitor General will take over the management of various facilities in the province for young offenders in the remand and

open and close custody situations. Further, the community corrections function in the Corrections Division will be charged with the responsibility of administering the various pre-disposition and disposition programs available to support the possible "rehabilitation" of the young offender.

The Young Offenders Act includes specific requirements for the maintenance and destruction of records. To facilitate these requirements, the first stage of the computerized development will be to set up and maintain a cen-



tralized file of all young offenders under the supervision of the Alberta Solicitor General. This centralized index will include the various records destruction dates that are identified in the Young Offenders Act to assist the Provincial Director of Young Offenders in determining whether to destroy or maintain a specific offender's records as regulated in the Act.

In addition to this computerized index, the information system has the following two characteristics:

1. Detention - For the remand and open and close custody situations, a basic system will be built to support the tracking of the young offender in the Juvenile Detention, Assessment and Development Centres in the province. The basic functions Client Identification, Admission, Charge recording, Movement, and where applicable, Incarceration will be maintained for the young offender.
2. Community Corrections - It is expected that the majority of

dispositions under the Young Offenders Act will be in the nature of probation, community service, and other such programs. To support the Youth Workers in carrying out their responsibilities for these programs, a case file recording system will be computerized to identify any investigative reports completed, status of any pre-disposition or disposition programs, and a record of the relevant charges involved. The data collected in these areas will be linked to the supervising office/agency to allow for some basic workload statistics.

Following the implementation of the first stage and the associated stabilization period, a number of enhancements have already been identified. These will be developed as part of a Phase 2 release later in 1984/85.

## PAYMENT OF ACCOUNTS SYSTEM

### Operations Systems Branch Computer and Research Services

The Alberta Solicitor General is the pilot department for the implementation of a new government-wide payment of accounts and budgetary control system. This new system will replace the aging AFIS accounting system which was implemented in the Province of Alberta in 1976.

The new system is built around three packages purchased from MSA (Management Science America Inc.). These are:

- Encumbrance and Budgetary Control
- General Ledger
- Accounts Payable

From the Alberta Solicitor General's perspective, the design of the new system represents the first stage in a decentralization of certain activities and authority from the central Treasury department. For example, the senior financial officers in the Solicitor General will now be charged with the responsibility to audit and authorize

payments in specific, controlled circumstances. The role of the central Treasury agencies will be to review, on a "sample" type basis, the transactions processed by the Alberta Solicitor General in order to ensure adherence to the new policies and procedures.

The key features of each of the major system functions follows:

### 1. ENCUMBRANCE & BUDGET CONTROL

- direct input through on-line terminals of departmental purchase requisitions, purchase orders, and invoices.
- full on-line validation of key information such as vendor identification, payment terms, account coding, and dollar balancing.
- progressive matching within user defined dollar tolerances of purchase requisition to purchase order to invoice.
- budgetary control of available funds for new expenditure commitments at the purchase requisition or purchase order stage. There is immediate prompting for those situations where funds are not available against program expenditure coding.
- immediate on-line inquiry facilities of available funds for specific program expenditure codes.
- immediate on-line inquiry facilities for purchase requisitions, purchase orders and invoices together with their particular status.

### 2. GENERAL LEDGER

- maintenance of a structured chart of accounts

with the account coding for expenditure, revenue, assets and liability classes and an account centre coding for the program/responsibility reporting.

- each account code/centre combination maintains up to 24 months of summary information together with the associated current year's budget information.
- standard set of reports to include full general ledger journal and account/centre reporting of committed funds, expended funds, budget and associated variance.
- flexible report writer facility to generate custom, departmental reports. This could be used, for example, to generate Regional Reports that cut across the designated program budgeting structure.

### 3. ACCOUNTS PAYABLE

- assemble payment of many invoices for one vendor.
- prepare all government cheques.
- maintain departmental specific and government-wide vendor file.

The initial implementation of the system will see the data entry and inquiry facilities occur in the Accounting office of the Alberta Solicitor General. It is the intention, at some time in the future, to allow for some parts of this data entry and inquiry function to take place at the end user sites of correctional centres, motor vehicle regional offices and the like.

The implementation date of the new system is planned for April 1, 1984.



## AN OVERVIEW OF CRSD PROJECTS

### CORRECTIONS PROJECTS

Most of the effort over the past month has been concentrated on the development of a Young Offenders system to support the upcoming implementation. User specifications were prepared and the detailed systems design completed. Programming activity is now underway. Also, a volume study is being completed to ascertain whether the more remote Community Corrections offices can sustain some form of automation through the use of display telephones or similar devices.

Training and user testing are now underway on the Trust Account and General Ledger system for the correctional centres. This had been on hold over the past weeks due to network software problems which have now been solved.

Testing continues by the RCMP on the COMIS/CPIC interface. User testing is also taking place on streamlining the user friendliness of the Mini Comis system.

### MOTOR VEHICLES PROJECTS

The total number of vehicle licence renewals received is now standing at approximately 800,000. The process of fleet renewals is just getting underway, so the prognosis for a very small last "annual" renewal rush is very good. The total number of renewals expected is about 1,600,000, and it seems likely that at least 75% will be issued by the end of February. By April 30, all current registrants in Alberta will have their new licence plates and will be placed on staggered, quarterly, or "permanent" registration.

The current Motor Vehicles production system has been enhanced to reflect the new operator licensing classes and fees adopted by the province. The final changes for the new vehicle registration fee structure also are in place. These two enhancements signal the "end-of-the-road" for the old system. We have made very significant alterations and additions to the existing system over the past year. These changes were made to allow for the phasing in of various oper-

ational changes Motor Vehicles has planned before the implementation of our new system (MOVES). The old system will be retired officially this summer; but not before the re-issue of plates, implementation of staggered registration, introduction of the permanent fleet registration, quarterly licensing, the new operator classes, and all related fee changes. Having these changes already reflected in the current system file will take an immense burden off the conversion and implementation phase of the new system.

Programming of the Vehicle Registration, Operator Services, and Finance subsystems is occupying most of the MOVES project team's time currently. These are the last components of the system dealing with the registration process and are tightly integrated with the Central, Client Vehicle Services, Inventory, and Reminder subsystems which are presently in systems test. A fair number of "Change Requests" have resulted from the integration of these last subsys-

tams. These deal mainly with communication among them, but the total product is now becoming a demonstrable entity.

The last subsystem, Enforcement, is in the design phase and completion is expected by the end of February. The location of the Enforcement function in head office allows this subsystem some freedom from integration problems.

A decision has been made to automate all Motor Vehicle agents in Alberta within the first year of operating MOVES. This will increase the network from a planned

40 locations to approximately 214. Network planning and user training programs are being re-assessed to meet this new challenge.

Implementation of the first release of MOVES is scheduled to occur after the completion of the current renewal cycle, likely early in July. A second release will follow as soon as practical after this, depending on system performance and user training.

The October, November and December MVD Transactional Log reports were recently completed and sent out to the Motor Vehicle field offices.

#### LAW ENFORCEMENT PROJECTS

The detailed January-June 1983 Crime Trends report was completed this month. This report compares the incidence of crime in Alberta during the first six months of 1983 to the level of crime during the same period in 1982.

The July-September Alberta Highway Patrol Statistical report was also completed this month. This quarterly report compares enforcement and general activity which took place in 1982 to that which occurred during the same period in

1983. Changes are currently being recommended to the Daily Activity Record form in order to provide for more detailed statistical analysis. These changes will likely be instituted on April 1, 1984.

Research began preliminary work on a homicide reporting system for the province. This system will contain data from the Homicide Return forms submitted to Statistics Canada by police forces in the province. It is hoped that historic and current data will be stored on the system.

#### DEPARTMENTAL SUPPORT PROJECTS

Work is progressing well on the rewriting of the Accounts Payable manual that will incorporate the changes that MSA will bring to our Financial Services Division. The Revenue manual is expected to be completed by April, 1984.

The Employee Relations sub-system of our Personnel System (PIMS) is in final user testing and is due for release shortly. The entire

system is scheduled for completion by April.

The paperwork is completed on the justification for a network monitor for our Department; only approval from PWSS is needed for acquisition. This equipment will enable the department to be more pro-active to our communication and network problems.



## 1984 - PUNNILY ENOUGH!

In George Orwell's Nineteen Eighty-four, the language used is Newspeak, a special vocabulary of words intended not only to deceive the user but "to impose a desirable mental attitude upon the person using them."

In this year of 1984, most newspapers and periodicals have conveyed the message of Newspeak in our lives today, but we'll start 1984 instead with a look at using words to get different meanings. Of course, the paradox of puns is that the worse they are the better they are.

A Scottish version of oat cuisine is porridge.

It's better to have loved a short girl, than never to have loved a tall.

A white lie is aversion of the truth.

If a man asks a woman to help him with a crowbar, it's because he can't lever alone.

"Waiter, this coffee tastes like mud."

"Well, it was only ground this morning."

"And the eggs taste disgusting!"

"Don't blame me, I only laid the table."

### PICK A PUN

The pun is missing from each of these sentences. Can you supply it? (Answers in the next issue of The Informer.)

1. Bad news about the two lighthouse keepers - their marriage is on the \_\_\_\_\_.
2. In a church, it's an accepted custom never to talk above a \_\_\_\_\_.
3. "Shall we have salad?" - "Yes, \_\_\_\_\_."
4. Some thought that Edgar Allan Poe was a \_\_\_\_\_ lunatic.
5. When the fencing team tried to wrap up the tournament, they kept getting \_\_\_\_\_.

### For Your INFORMERation

As of November 1983, the ratio of police to population in Edmonton was 1 to 496. In Calgary, it was 1 to 531. The ratio for municipalities in Alberta with their own police forces (Lethbridge, Medicine Hat, Camrose, Taber, Coaldale, Barrhead, Redcliff, Lacombe, Edmonton, and Calgary) was 1 to 523.

\* \* \* \* \*

The number of offences involving refusing a breath sample (Section 235) rose 262 per cent between 1978 and 1982.





AL 1.527

MAY 1984

# THE INFO INFORMER

A Publication of Computer and Research Services

4th Floor, Melton Building, 10310 - Jasper Avenue, Edmonton T5J 2W4  
VOL. 2, NO. 2 March, 1984

## THE CHANGING ROLE OF COMPUTER AND RESEARCH SERVICES

### Systems and Information Services Division

In recognition of the changes brought about by automation, particularly those noted by the current Department-wide office automation study, the Computer and Research Services Division of Alberta Solicitor General will have a major organizational change, effective April 1, 1984. On that date, the Records Management and the Library Services Units will be transferred from the Finance and Administration Division to Computer and Research Services. The two units will be combined with the Research and Information Branch to form a new Information Management Branch.

This organizational change is necessary to support an effort in the Department to develop a central focal point for information tracking. In its final form, the existence and location of all Departmental information, computerized or manual, should be obtainable from one source. This will include the information contained in the central and decentralized filing systems, all computer systems, and the central library. In this organizational structure the central research group becomes more of a "facilitation" group, with the emphasis on helping end users find and use data rather than on report production. Extension to the existing management reporting capabilities will also be a high priority.

The Information Management Branch will initially be comprised of four units:

- Research Consulting
- Information Centre
- Library Service
- Records Management and Office Automation.

Future issues of the Informer will contain more information concerning the roles and responsibilities of the Branch as they are developed and finalized.

To more accurately reflect the Division's changing role in the management of information as a departmental resource, Computer and Research Services will be renamed to the Systems and Information Services Division. Physical re-location of personnel will not take place until the move to the new building, 97th Street Place, is underway.

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* RELOCATING?
* We would like to keep our mailing list current, so
* if your department has changed locations or if you have
* had a title change, please notify Audrey Swaffield, Assistant
* Editor, at 427-0366 so that your address label can be updated.
* Your co-operation in this matter is greatly appreciated.
*
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Contributions to THE INFORMER are welcome from our readers, particularly regarding announcements, articles, or events which affect a program area within the Alberta Solicitor General. Articles offered for publication or requests to be added to our distribution list should be directed to:

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CONTENTS:	Page
THE CHANGING ROLE OF COMPUTER AND RESEARCH SERVICES.....	1
CRIME TRENDS IN ALBERTA....	3
A PRACTICAL UPDATE FOR MIDDLE MANAGEMENT.....	5
AUTOMATION AND THE DRIVER CONTROL BOARD.....	6
POLIS II.....	9
THE DATA ADMINISTRATION FUNCTION.....	10
OVERVIEW OF CRSD PROJECTS	
CORRECTIONS PROJECTS ....	12
MOTOR VEHICLES PROJECTS .	13
LAW ENFORCEMENT PROJECTS	14
DEPT. SUPPORT PROJECTS ..	14
1984 - PUNNILY ENOUGH.....	15
FOR YOUR INFORMATION ....	15



## CRIME TRENDS IN ALBERTA

### Research Management Branch Systems and Information Services Division

Between 1982 and 1983, Alberta experienced a decline in the incidence of Criminal Code crime. Data extracted from the Alberta Police Information System (POLIS) indicates that there were 4.4% fewer Criminal Code offences committed during 1983 than during 1982 or 220,543 offences in 1983 compared to 230,685 in the previous year.

During 1983, offences involving property constituted 66.8% of all Criminal Code crime. The 147,422 offences of this nature recorded by police in 1983 represent a drop of 5.4% from the 155,139 offences in 1982. The most common type of property offence was theft of goods valued at \$200 and under. Alberta police recorded 57,999 incidents of this type of theft during 1983, virtually the same number as recorded during 1982. There were 32,473 break and enter offences in 1983, down 8.3% from the previous year. Motor vehicle theft exhibited the greatest decline, dropping 18.3% over the two years.

The incidence of fraud fell by 10.2% between 1982 and 1983. Fraud involving the use of credit cards was down 12.9% while cheque fraud dropped 13.4%. Theft of property valued at over \$200 also declined during this period, by almost 5%. There were 31,627 such thefts in 1983 compared to 33,249 in 1982.

Violent offences (offences committed against other persons) were also reduced in frequency. There were 19,172 violent offences during 1983, 3.9% less than in the previous year. All categories of violent offences exhibited decreases between the two years with the exception of homicide which rose by 5.3%. Seventy-nine

homicides occurred in Alberta during 1983 compared to 75 during the previous year. Attempted murder cases decreased by 5.0%, from 100 reported cases in 1982 to 95 cases in 1983. Robbery declined even more substantially. The 1983 figure of 2,042 robberies represented a decrease of 8.8% from 1982.

Amendments to the assault sections of the Canadian Criminal Code which were effective January 1983 make assault data comparisons between the two years invalid. Police recorded a total of 16,310 assaults and sexual assaults during 1983. Assaults accounted for 85.1% of all violent crime. There were also 214 other sexual offences also recorded during the same period.

Other Criminal Code crime occurred 1.8% less frequently in 1983 than in 1982. Most offences in this class exhibited moderate decreases with the exception of bail violation which rose dramatically by 75.8%. Private willful damage offences constituted almost one half of all other Criminal Code crime. There were 25,612 private willful damage offences in 1983, down 3.4% from the 26,514 willful offences that occurred in 1982.

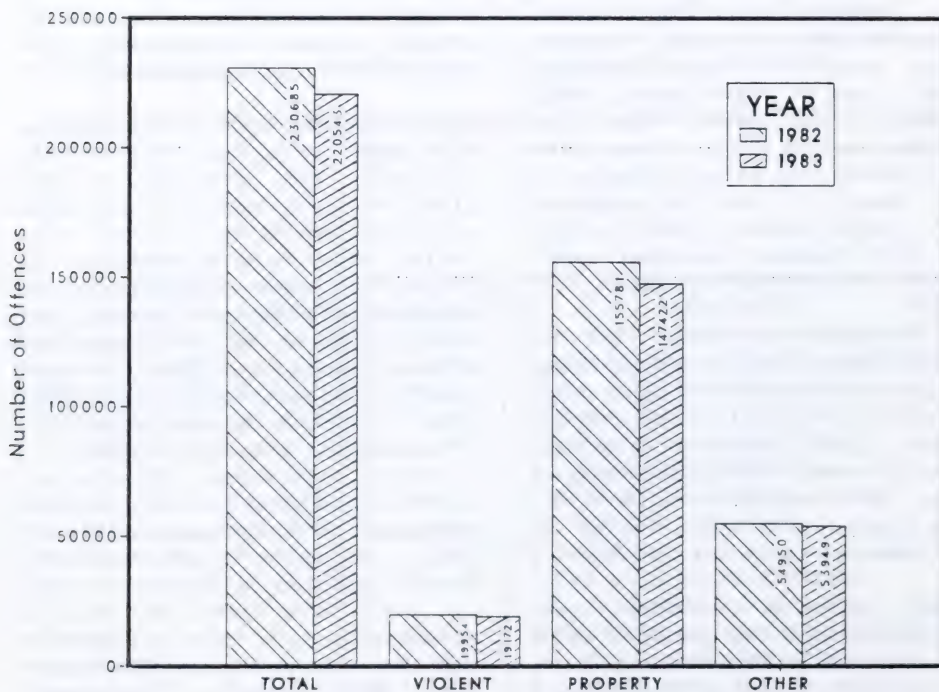
Traffic offences in Alberta decreased 3.9% between 1982 and 1983. The majority of the 40,967 traffic-related offences recorded in 1983 were impaired driving offences which rose marginally from the previous year. Other criminal code offences, the second largest component of traffic offences, showed a marked decline of 24.0%, dropping from 11,532 in 1982 to 8,767 in 1983. During the same period, the number of persons refusing a breath sample increased

by 18.8% up to 3,627 offences in 1983. Traffic violations of provincial statutes decreased 16.8% from 28,914 in 1982 to 24,064 in 1983.

During 1983, police reported 83,247 traffic accidents in the province. All types of accidents decreased in number between 1982 and 1983. Property accidents showed the greatest decrease in

frequency of 17.7% while fatal and injury accidents were reduced by 12.7% and 8.2% respectively. The number of persons killed in traffic accidents in Alberta in 1983 was 399 or 18.8% less than in the previous year. The number of persons injured in traffic accidents also dropped during this period, by 11.1%, from 19,659 in 1982 to 17,477 in 1983.

Number of Criminal Code Offences: 1983 and 1982





## A PRACTICAL UPDATE FOR MIDDLE MANAGEMENT

April 1 Supplement  
Adapted from Management Accounting

The latest ideas for proper qualitative and quantitative management.

- Three-dimensional Multi-functional Constraints (TMC) - A one-day course.

Although the discipline is relatively new, it is hard to imagine how the financial management of a multi-national company could function effectively without a thorough grasp of TMC theory. This course is designed to demonstrate the applicability of this theory to businesses of all sizes.

### Contents

1. The Early History.
  - a. Herman Pickelberger and other pioneers.
  - b. Alfonso Ramblez and the socio-emotive approach.
  - c. The deodorant factory experiments.
  - d. Michel Toutdroit and the return to Orthodoxy.
2. The Modern Approach.
  - a. Yashiko Kamikaze and the Tokyo School.
  - b. The reconciliation of the broad-based introspective divergence syndrome with the concept of the multi-faceted interactive matrix.
  - c. The relevance of inflation to TMC and the implications for SSAP 16 and its successor.
3. What of the Future?

- a. A plea for the inclusion of TMC theory in relevant professional examination syllabuses.
- b. The quest for the fourth and fifth dimensions.

4. Practical exercises using the Kamikaze algorithm (Microcomputers provided).

- Top-down Inter-functional Awareness

When acquisitions go belly-up, executive stewardship capability is challenged by bottom-line recipients, who will frequently instil intra-user tensions by headlining the phenomenon of 'rabbit management': corporate executive mesmerisation by eloquent bullhurlers at ballpark level.

This can be oviated by explicit interfunctional awareness which facilitates meaningful evaluation of prospect niches vis-a-vis global constraints impacting on mainstream portfolio configurations.

Our participative course programme primarily addresses itself toward the relevant behaviour dynamics in the total corporate strategic operating environment. Embracing hands-on development on a matrix basis, participants will be encouraged to belly-down and eye-ball the geometics of the problems presented in randomised interactive scenarios. It is anticipated that this cross-fertilisation at key

functional level will henceforth enhance decision-making, promote a proper acquisition threats/opportunities issues examination and lead to a fundamental re-structuring of reliance on interpersonal feedback approaches.

- Top-down Multi-faceted Scenarios - A new approach.

A top-down multi-faceted scenario ( with interactive behavioural analysis) ought to eradicate explicit participative interfaces. In addition, the adoption of this three-dimensional people-orientated synthesis should encourage convergent motivational awareness not wholly intrinsic to an inward-looking interfunctional organization.

The organization can also reap the rewards of the integrated

demographic capability inherent within the system coupled with the experimental inflation-adjusted appraisal resultant from the ensuing vital sector awareness. This means that sophisticated institutional software may be developed to overcome the current logic constraints being brought to bear on the group profitability matrix, bringing the obvious benefits of positive functional input, effective priority needs and specific upstream challenges.

At no time in the past has the management accountant/economist had such a vital sector sample to evaluate. Using top-down multi-faceted scenarios he can now formulate a critical cost-benefit matrix approach to business planning.

## AUTOMATION AND THE DRIVER CONTROL BOARD

### **Driver Control Board Alberta Solicitor General**

The Driver Control Board has accepted the opportunity to automate much of its operations and has plans to significantly enhance its efficiency and productivity by expanding its use of computers.

In order for the reader to appreciate the Driver Control Board's involvement in the automation field, it is necessary to understand its legal authority, structure, and function relative to the licenced operator.

The Driver Control Board receives its quasi-judicial functional authority under Sections 20 - 23 of the Motor Vehicle Administration Act and operates on a system involving referrals from the Minister, a judge, or the Registrar of Motor Vehicles.

The Driver Control Board is composed of a Chairman, two Vice Chairmen, four full-time Members, nine part-time Members, five administrative officers plus clerical staff. The Chairman of the Board is responsible for its over-



all operations and reports directly to the Deputy Solicitor General.

In recent years, the number of client referrals has greatly increased. In 1982, there were some 502 traffic fatalities, 22,000 injuries, 400,000 tickets issued for violations under Provincial Statutes, and 27,000 charges laid under the Criminal Code. This resulted in 44,000 operators having their driving privileges suspended for periods varying from one month to three years or more.

The 1.7 million drivers in Alberta belong in one of the two categories: probationary or adult operators.

Probationary operators are not yet 18 years of age, usually hold a licence under a parent or guardian's sponsorship, and are referred to the Board when their demerits total eight or more. They are interviewed by an Administrative Officer and advised about the demerit system, driver laws, driver responsibility, and attitude. Emphasis is on the prevention of further problems and this initial interview is frequently the only contact the young driver will have with the Board.

Adult operators are referred to and appear for a Board hearing when they have incurred three suspensions within the most recent five year period. A Board hearing consists of a chairman and at least one part-time Board Member. The initial purpose of the hearing is to gain the attention and co-operation of the errant driver in the interest of changing the attitude and level of responsibility in the operation of motor vehicles. If there is a continued deterioration of the driving record, however, the Board can exert its authority and suspend an operator's driving pri-

viliges, resulting in a greater degree of safety to the motoring public. This is the major aim of the Driver Control Board.

Adjudication by the Board is based on a close review of the driving record, attitude towards responsibilities, and the commitment made by the operator. A key factor is the board's flexibility in being able to deal with errant drivers on an individual basis. Remedial training may be required, certain restrictions may be imposed, and in severe circumstances, driving privileges may be withdrawn for a definite or indefinite period. In the latter case, the operator may request, in writing, a review of the suspension by the Board or may appeal to the Court of Queen's Bench prior to any reinstatement.

Driving records of all who appear for interviews or hearings are monitored regularly for up to two years. An accumulation of further violations or failure to comply with conditions set by the Board can result in a further hearing where more significant action may be considered.

The Board's total staff complement is located in Edmonton, Calgary, Grande Prairie, and Lethbridge. Thus, total provincial coverage is provided with the Edmonton office holding hearings/interviews at a variety of locations from Red Deer to the north and the Calgary office covering Calgary and to the south.

Statistics from 1983 indicate a case load in excess of 9,000, and active client files in excess of 33,000. Consequently, the introduction of automated processes has allowed the Board to handle significant increases in referrals in a very capable manner.

In 1982, the Driver Control Board was the first branch in the depart-

ment to utilize Mohawk Word Processing Equipment. Prior to that time, all functions were handled manually and somewhat laboriously.

One of the most time consuming exercises was the dictating and typing of some 40 different types of letters - demand letters ordering an operator to appear for interview/hearing, confirmation of appointment letters indicating time and place of interview/hearing, any followup letters, and confirmation of board disposition/adjudication letters and the like. The latter, for example, has a range of 44 different paragraphs keyed into the processor and available to be extracted as necessary. By law, the Board must provide the client with written confirmation of its adjudication. The automated equipment also handles formidable Diary Date (B/F) lists.

The interview/adjudication document, which is signed by convening Board members is utilized to capture statistics on the entire operation, and range from age, sex, number, and location of hearing and type of remedial training ordered. Monthly statistical information is readily extracted and this and other factors have been found to greatly assist in the overall management and effectiveness of our operation. Client driving records are also immediately available now that our Mohawk Equipment is linked to the Motor Vehicles Division system.

We are constantly reviewing new methods of using further automated processes to an advantage. Currently, we are examining the automation of the Driver Control Board budget and inventory. This would provide management with rapid and up-to-date access to either of those necessary administrative requirements.

The Driver Control Board is enthused with the implementation of the Licence Enforcement portion of the Motor Vehicle Division's new system. This will provide the Motor Vehicle Division with the capability of programming the system to refer operators whose driving records meet the criteria for an interview or a Board hearing. Presently, this is partially automated but a large proportion is manual.

The manual system brings about human errors, but this will be overcome in 1984. Further, once a person has been flagged on the system as a Driver Control Board client, any further entries on the system will be printed in the Driver Control Board office immediately. In other words, we will be aware of further offences as they occur. This in turn reduces the laborious method of reviewing a person's record every six months to ascertain if the client has re-offended, or complied with the Board requirements. If the person has re-offended, or has not complied, that person is then required to attend a further hearing.

Both Edmonton and Calgary offices will be able to enter suspensions and/or reinstatements directly into the system along with changes of address and special condition codes. This is presently done by the Motor Vehicle Division upon documentation produced by the Board.

After a client has appeared for a hearing and has not committed any further offences within a five year period, the file is reviewed and then purged from the system. The new Enforcement system will eliminate this labour-intensive task as offences are brought to the system.

The proposed client-tracing system will be similar to booking an air-



line ticket. When a client responds to our Demand Notice to make an appointment, arrangements are made verbally for a Hearing at a location nearest the client's residence. Confirmation by the client is then entered into the system and a letter of confirmation is forwarded indicating date, time, and place of hearing. At any given time, all staff accessing the terminal will know the exact status of a person's file, the various points throughout the province where the hearings will be held and the Board Members' schedule for the hearings. Currently, this is all done manually.

The foregoing is not the limit of the uses automation can play in the Driver Control Board: we can fore-

see other uses as we progress. The Automation presently in the Driver Control Board's operation, however, has resulted in the maintenance of our 1980 staff level whilst significantly increasing our productivity. In the 1980-81 fiscal year, the Driver Control Board processed 6,211 referrals compared to 9,909 during the 1982-83 fiscal year.

Computer and word processing have proven to be great tools to increase the efficiency of the Driver Control Board's operation and administration, which in turn has raised productivity. The Board now has the capability of providing a rapid service to the client while still maintaining the very necessary personal contact.

## POLIS II

### Research Management Branch Systems and Information Services Division

In 1979, the Alberta Police Information System (POLIS) was developed in an effort to provide the Law Enforcement Division with information concerning the law enforcement activities of various police forces in Alberta. The system was designed to aid the decision making process by providing a comprehensive statistical base of crime and traffic data. Despite the identification of numerous data discrepancies and formatting difficulties, both the content and format of POLIS output remained virtually unchanged over the next few years.

In 1982, the Research and Planning Branch began investigating the possibility of developing a more sophisticated reporting system

that could provide information in more detail for policy considerations, as well as correct certain inaccuracies and inconsistencies inherent in the original reporting format. In addition to these objectives, increasing the flexibility of processing and reporting the data was considered to be of value for responding to specific information requests and for accommodating complex research applications.

Some preliminary work was carried out using SPSS (Statistical Package for the Social Sciences), but although data manipulation was facilitated, output formatting was restricted due to the very nature of the report procedure in SPSS.

In the summer of 1983, SAS (Statistical Analysis System) became available for use through the Terrace Computing Facility. Experimentation soon revealed that SAS had two distinct advantages over SPSS for this particular application. For reporting that takes place on a regular basis, SAS offered the full flexibility of a programming language to customize reports; while for reports being generated in response to specific information requests, suitable output could be produced through SAS procedures with few default changes. As a result, POLIS II was designed and developed using SAS.

POLIS II is currently reading a master file that is created through a series of COBOL programs. Since the objections to the original POLIS involved mainly the formatting of output, the production of the data base using COBOL was not significantly altered. SAS reads this data and saves a SAS dataset containing all data and file description information in a form that is accessible only through SAS. This SAS master data set contains approximately 13,500 observations, each having 1,578 variables, representing the time period 1978-1983.

The SAS master is subsequently read and processed through a rather complex series of SAS data steps and procedure steps where the crime and traffic enforcement information is summarized and compared in a meaningful manner and output in reports. The Research and Planning Branch worked closely with the Law

Enforcement Division in the design of these customized reports.

The system was tested using data up to the end of September, 1983 and minor changes were made to the programs. POLIS II went into full-scale production using data up to the end of 1983. Year-end reports were available in the first week of February, 1984. This has apparently made Alberta the leader among the provinces as far as turn-around time for producing reports concerning law enforcement activity. POLIS II has also been used extensively for data retrieval and reporting in response to information requests and research needs.

The present strategy involves producing reports quarterly, with quarterly reports containing data for the individual months of that quarter and the year to date.

These reports are produced for 22 jurisdictions in the province. Specific information requests are responded to almost immediately, in some cases over the telephone if no printed output is necessary.

It is anticipated that POLIS II will continue to be expanded in response to the information needs of management, research, and the general public. This element of adaptability represents the primary advantage of POLIS II over POLIS. As a result, POLIS II should be perceived as being in constant development with output tailored to the changing needs of users.



## THE DATA ADMINISTRATION FUNCTION

### System Support Branch

In the last half decade, there has been a significant change in business data processing. Much of this change has been triggered by the movement to Data Base Management Systems. Data Base Management Systems have in turn brought us to the realization that "data" has to be viewed as a corporate resource. As with any resource, this data resource has to be managed. That is the role of the Data Administration Area. Before dealing with some of the consequences resulting from the formalizing of the data administration roles, it might be useful to clarify some of the terminology used in this article. In the next several years, you will hear these terms more and more frequently.

- **DATA BASE** - Generically, this term can be used to describe all of the data, both manual and automated, which is of interest to the organization (Alberta Solicitor General).
- **DATA BASE MANAGEMENT SYSTEM (DBMS)** - This is the software/hardware components which control the storage and retrieval of data from the automated portion of the database.
- **ADABAS** - This is the name of the specific DBMS package which is used in our department. DBMS is also being used to develop the MOVES SYSTEM. This well regarded, state of the art, DBMS was originally developed in Germany by a company called SOFTWARE AG. It is now in use in approximately 1,000 sites around the world and is categorized as being an INVERTED or NETWORK DBMS.

There are two significant attributes to the two terms just mentioned. INVERTED implies that there can be different keys into one file whereas most "older" file processing mechanisms used one major key per file. NETWORK implies that any one record in any one file can point to many records in many files in a very flexible and dynamic way. There are no rigid structures or rules to obey which means that restructuring of file and record relationship can be done much easier than with other DBMS packages. One of the best features of ADABAS is this flexibility it has built in to it.

- **NATURAL** - One of the best known 4th generation languages and a product of SOFTWARE AG. Several attributes of a 4th generation language include having an "English-like" syntax and the ability to talk to a DBMS. Natural talks to ADABAS.

When the original decision had to be made several years ago on which computer language to use, Natural was not nearly as sophisticated a product as it is today; therefore, it was not chosen for the MOVES SYSTEM. All other Solicitor General Systems begun in the last year (i.e., PIMS, ITAS, COMIS), however, are being developed using Natural. Since Natural will become a significant tool in future systems development in our department, a follow-up article will discuss the attributes of 4th generation languages in more detail.

- **DATA ADMINISTRATION (DA)** - A group of people responsible for developing and administering the policies, procedures, practices, and plans for the definition, organization, protection and efficient utilization of data within the corporate enterprise.

Translating the above definition into more understandable terminology, this group of people could be viewed as custodians or trustees of the data. This group is made up of people from two major areas with two different skill sets. This include the technical people with data processing skills who are responsible for the technical side of things such as defining the data base and doing backups of the data base. The other half are the people who understand the organization and how the data is used. They are responsible for policy aspects, such as which users or divisions can access which data.

They are also responsible for determining which users are responsible for maintaining each portion of the data base. Each system in our division will have a minimum of one person from each of the technical and user areas. A major system such as MOVES is expected to require the dedication of three people from the user area and two people from the technical side.

Since the data administration function is a new function area in organizations migrating to DBMS systems, we will all require some adapting. The DA group people are all relatively new to the task and will have to acquire new skills and adapt to new tools. There will also be a lot of new interfaces developing between this group and the overall organization. These will evolve over time. The maturing of the DA function is reasonably expected to take two to three years and should prove to be an interesting time.

## AN OVERVIEW OF CRSD PROJECTS

### CORRECTIONS PROJECTS

Programming activity continued in the development of the Young Offenders' system to support the April 1, 1984 implementation. Emphasis has been placed on constructing the Detention and Community Corrections aspects of the system - the automated Records Destruction provisions will be implemented as a second stage. System testing activities are now underway to be followed by the User testing and acceptance.

The initial hardware network to cover the major community corrections offices, the Detention facilities and the Youth Development Centres is in the installation

stages. The technical team in CRSD participated in the extensive orientation and general training sessions held by the Corrections Division for the various staff involved in implementing the new Young Offenders Act.

The Trust Account system is in the parallel training stages at three correctional centres. The remaining correctional centres will begin user and orientation in the next few months. A minor enhancement to COMIS was made available to the Remand Centres at Edmonton and Calgary. This involved a simple tracking facility for their



inmates that are the subject of Federal Billing provisions.

Meetings were held during the past month with representatives from the Information Management Branch and Regional Services to standardize data definitions, data sources, and methods for compiling Corrections statistics. This standardization effort will ensure that Corrections statistics

reported in several different documents will be comparable.

The Corrections/CPIC interface is now operational via the Mohawk equipment and the Motor Vehicle interface has been moved to the Mohawk equipment as well. Work is continuing on the preparation of this interface to accommodate the new MOVES system.

### MOTOR VEHICLES PROJECTS

Programming and system testing remain the largest activities on the MOVES project. The Operator Services and Financial Services subsystems are nearing programming completion while the Vehicle Registration subsystem is about 1/3 finished. The Enforcement subsystem is nearing the end of the design phase and a User Review will be held in early April. The remaining five subsystems are in the system test phase.

The MOVES system was successfully converted from running under the TP monitor, COM-LETE to running under CMS during the last period. CMS has also replaced TSO as the development aid in use by the programming staff.

The user training on MOVES began in the last period. Representatives from the 11 Motor Vehicle operated issuing offices spent four days at head office where they attended a training session that included an overview of MOVES and an introduction to the new systems concepts.

The majority of the session was a "hands-on" opportunity to use the system. All trainees received a signon ID which they have taken back with them. The training system is being used from the field as the trainees show MOVES to other

people in their office and practice what they have learned. The electronic mail facility has been put to good use between the ODT team (MVD staff assigned full time to the project at head office) and the field users.

The MOVES project now supports three separate data bases. They are the development data base, a second data base set up to provide a stable environment for training and now work has begun on defining the production data base. Since MOVES is highly table driven, the production table values are critical and require serious thought and co-ordination.

The current Motor Vehicles production system continues to process its last annual renewal. The response from the public continues to be good. The Alberta government announced a continuance of their policy to extend the Truck Licence renewal to June 30 again this year. This affects about 100,000 vehicles and means the renewal cycle will not be complete until July 1984.

The current system supports an interface with Treasury for Motor Vehicle Refunds. During the last period, work began on converting this interface to meet the requirements of the departmental MSA sys-

tem. This project is currently in the system test phase.

A presentation of the features in MOVES was made at the Motor Vehicles Administrators Information Systems conference in Phoenix during this period. A high level of interest was shown in some of the basic concepts and functionality derived from the design of the system. On a continental basis, there seems to be an increased interest in new systems development for Motor Vehicle operations.

The reassessment of the network required by the decision to auto-

mate all Motor Vehicle issuing agents in Alberta is in progress. Of the 214 locations, the first 100 will receive MDS equipment which will handle 93% of the transaction volume. An RFP will be issued to look for equipment to handle the smaller volume offices.

The emphasis in the project is moving steadily towards implementation issues as the development becomes less of a central focus.

The January and February MVD transactional log reports were compiled and distributed this month.

### LAW ENFORCEMENT PROJECTS

The 1983 year-end Crime Trends in Alberta was recently produced. An article in this issue of the newsletter points out highlights and trends in crime during the past year and compares it to the level of crime in 1982.

The fourth quarter (October-December) 1983 Alberta Highway Patrol Statistical Reports were distrib-

uted last month. On April 1, the AHP will begin to use a new Daily Activity Record form. This form is completed daily by each Highway Patrol officer and is used to record: the amount of enforcement and general activity time expended; the type and volume of enforcement action taken; and, the amount of time spent patrolling various highways in the province.

### DEPARTMENTAL SUPPORT PROJECTS

PIMS is now completed and currently being turned over to Application Software Branch for continued maintenance and support.

The EDP Plan has now been updated to reflect the changes created by budgetary decisions. Work is starting on a complete rewrite to reflect changes resulting from our dedicated environment and expansion of MOVES and Young Offenders.

The move of the Solicitor General system to our dedicated host continues with excellent support from

PWSS. Upgrading of hardware is currently underway and complete transfer of processing will continue over the summer.

Networking planning and costing continues with evaluations being made as to Front End requirements, multi-drop opportunities and asynchronous dial-up requirements. Network performance and monitoring equipment is currently being installed to further enhance the Department's network support function.



### INSIDE TRACK

Each of the five-letter palindromic sets of letters below can be found intact somewhere in a familiar English word - as the beginning, middle, or end. How many of the encompassing words can you identify? An example has been provided to get you started.

Ex: TOMOT - AUTOMOTIVE

- |           |           |
|-----------|-----------|
| 1. AWKWA  | 11. ATHTA |
| 2. YNONY  | 12. ROPOR |
| 3. SSASS  | 13. OLILO |
| 4. OLKLO  | 14. NDIDN |
| 5. YBABY  | 15. ROBOR |
| 6. WEREW  | 16. LETEL |
| 7. ORKRO  | 17. RAMAR |
| 8. NÖTON  | 18. SICIS |
| 9. RIDIR  | 19. ANGHA |
| 10. OTSTO | 20. LYSYL |

### ANSWERS TO "PICK A PUN"

1. Bad news about the two lighthouse keepers - their marriage is on the rocks.
2. In a church, it's an accepted custom never to talk above a vesper.
3. "Shall we have salad?" - "Yes, lettuce."
4. Some thought that Edgar Allan Poe was a raven lunatic.
5. When the fencing team tried to wrap up the tournament, they kept getting foiled.

### For Your INFORMATION

In 1982, one-fifth of the Criminal Code offences for failing to remain at an accident and one-quarter of the provincial statute offences for failing to remain at an accident were cleared by the police in Alberta.

\* \* \* \* \*

The estimated "age" of a series of licence plates, such as the new series which Alberta has recently introduced, is eight to ten years. A new series of licences plates is usually required after this period of time as the licence plate numbers have been nearly exhausted and the "old" plates are worn out.





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# THE INFORMER

A Publication of Computer and Research Services

4th Floor, Melton Building, 10310 - Jasper Avenue, Edmonton T5J 2W4  
VOL. 2, NO. 3 June, 1984

## MOVES COUNTDOWN...

### Systems and Information Services Division

Preparing for the implementation of a system as large, complex, and distributed as our motor vehicle system (MOVES) is a gargantuan task. Designing, coding and testing the system is a challenge to manage, but as the actual implementation approaches the number and type of people involved as well as the number of concurrent activities explodes, creating an equivalent increase in the co-ordination effort. The following lists illustrates some larger activities currently taking place:

- Systems Development - The team of 73 people is somewhat reduced, but a large effort remains with work on the last subsystem and clean-up on the other subsystems. The system currently has almost 300 Assembler and COBOL programs, 80,000 entries in over 250 updatable tables, and over 800 different online display maps.
- System Testing - Three people are engaged in testing the interfaces among the various subsystems. The subsystems are moved to this phase after they are individually tested and demonstrated.
- Acceptance Testing - Motor vehicle staff are doing their own system testing. This comprises exercising all of the business functions which occur as part of their normal operation.

- Maintenance - The system testing and training results in a large number of change requests, discrepancy reports, and trouble reports which must be researched and implemented, if necessary. Almost all of the project team is involved sporadically on this task.
- Table Loading/Editing - The large number of tables and the importance of linkages defined in the tables makes their loading and accuracy extremely important items. It is critical that there be precise

entry and considerable edit checking. A major part of the transaction sequencing and control is done by tables, making them integral to the system's operation.

- Text Entry - There are a large number of letters generated by the system and also several thousand "help" and "error" messages varying from one line to a page. Entry and editing of the text to produce meaningful guidance to terminal operators is currently underway.

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*
*      INFORMER PUBLISHING CHANGE
*
*      Effective this issue (June, 1984), THE INFORMER
*      will now be published as a quarterly newsletter.
*
*****

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Contributions to THE INFORMER are welcome from our readers, particularly regarding announcements, articles, or events which affect a program area within the Alberta Solicitor General. Articles offered for publication or requests to be added to our distribution list should be directed to:

Editor  
The Informer  
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CONTENTS:	Page
MOVES COUNTDOWN.....	1
DIRECTIONS IN THE INFORMATION MANAGEMENT BRANCH.....	4
SOLICITOR GENERAL OFFICE SYSTEMS PROJECT.....	9
"A COMPENDIUM OF CRIMINAL JUSTICE STATISTICS: SUPPLEMENT 1983".....	11
NETWORK PERFORMANCE AND MEASUREMENT.....	13
THE YOUNG OFFENDERS RESOURCE MANAGEMENT SYSTEM.....	14
LIBRARY NEWS & REVIEWS.....	17
OVERVIEW OF CRSD PROJECTS CORRECTIONS PROJECTS ....	18
MOTOR VEHICLES PROJECTS .	19
LAW ENFORCEMENT PROJECTS	20
DEPT. SUPPORT PROJECTS ..	20
OTHER SISD EVENTS.....	22
FOR YOUR INFORMATION ....	22
MINDTWISTERS.....	23



(con't from page 2)

- Training - The training co-ordinator identified over 700 people needing training in the operation of MOVES. The initial training has been underway for some time, and plans are in place for follow-up training.
- Field Support - The eleven MVD offices have been using the system to practise on for several months during development. They will act as resource centres to resolve problems encountered by private agent operators in their district during and after implementation. Problems needing more help will be referred to the Motor Vehicle data administrators, our network help desk, or the development/maintenance team.
- Procedures Manual - Manuals were developed for training and are undergoing constant revision throughout the process.
- Database Support - Our database group currently has test, training and production databases all in operation. Synchronization of table data and system "bootstrap" information among the different databases is a crucial task during this pre-implementation period.
- Conversion - Acceptance of data from the field for the old system will stop at the end of July. Motor Vehicles production staff are working diligently to have the old system files up-to-date and ready for conversion to the new database two weeks after that point. Several test runs have taken place to check out the conversion programs, and two total conversions are planned before the final one for production. Several programs

have been and currently are being written to verify the validity of data on the new database after conversion.

- Temporary Processing - Plans are in place to have extra staff and terminals available for the planned and unplanned extra processing required during the implementation period. This will include clean-up of data failing conversion edits, batches received late from the field, transactions pending on the old system, and the like.
- Network Installation - Most of the telephone lines and terminal equipment is installed and tested, but the activity is still very heavy. We have over 200 locations to service, and at any point in time several offices are resigning or re-locating. The co-operation from equipment vendors (MDS and ALTEL) and Alberta Telephones has been excellent as we attempt to hit the moving targets. We will have over 350 inter-active terminals on the system and over 100 additional inquiry terminals. A TESDATA network monitoring system has been installed to allow us to monitor the network and diagnose errors. Testing of the whole network will begin within two weeks.
- Host Monitoring - Load testing and load simulation have identified and allowed us to react to potential bottle-necks in the system which could affect response time. We have supplied staff to work with Public Works Supply & Services analysts in performing system monitoring and tuning on our dedicated AMDAHL 5860. The environment has become quite stable, but load testing and operating environment tuning will continue at a heavy rate

up to, and during implementation.

- External Interface - Meetings and/or notifications are occurring with all cities, police forces, etc. which have access to our motor vehicles data. New interfaces are being considered, and all interfaces are being maintained. Notice is being given about changes they may see and initial instability they may experience.
- System Planning - Enhancements are being planned for MOVES with the associated effects on host hardware and software,

the network, the database, and the system altogether.

The list is not complete, but it gives some idea of the current level of MOVES activity. The months ahead will be extremely busy and at times very nerve-racking. Installing a motor vehicle system does not sound as inspiring as launching a space shuttle, but all the people directly involved find the apprehension, the excitement, and the anticipation is every bit as great. The project has been a long one, but the resulting system will be worth the time and effort.

## DIRECTIONS IN THE INFORMATION MANAGEMENT BRANCH

### Information Centre Systems and Information Services

Since its conrescence in April, 1984, the Information Management Branch (IMB) has developed several documents addressing the operating objectives, procedures, and strategies of its units. As well, the IMB recently wrote reports summarizing the results of Phase I of the office systems study and presenting the proposal for Phase II (the detailed systems analysis stage) of the study. These documents were distributed recently at the departmental Senior Management Committee meeting. Precis of these articles will be made available to other departmental personnel during IMB/operating division meetings to be scheduled in the near future. This article highlights the contents of several of these IMB reports.

### RECORDS MANAGEMENT/OFFICE AUTOMATION UNIT

The services offered by the Records Management/Office Automation Unit and the status of each service follows.

- Records inventory and appraisal - inventories have been completed for many areas
- Active file management and control - a departmental subject classification manual has been implemented in several areas
- In-active file management - head-office has 3,500 cu. ft. of in-active storage; in-active records requiring long-term storage are regularly transferred to off-site storage
- Subject index of information holdings - a subject index of

information holdings by location throughout the Department has been started

- Records retention and disposition schedule - approximately 70% of records holdings are scheduled. Blanket schedules are currently being developed to cover all administrative records
- Records management procedure manual - a procedures manual has been developed
- Mail management - mail-handling procedures and policy defining the use of couriers were implemented
- Forms management and control - a forms functional classification has been developed and a refined numbering system is being implemented
- Archives management and control - records having archival value are transferred to the Provincial Archives for permanent preservation

The records management role has been greatly expanded by the involvement in the automation project. One of the prime areas to be addressed in the near future is the document production component of the office automation study. The Records Management/Office Automation staff will be working closely with the users in analyzing information processing and implementing automated solutions. Initially, word processing/document production requirements will be investigated for head office, Correctional Centres, and Community Corrections. The Motor Vehicle Division will be addressed last so as not to interfere with the implementation of MOVES.

The feasibility of introducing automation in the Records Management function will also be investigated. Some of the benefits of a computer-based records management system are to assist users with

subject classification, assist in locating specific documents or files, provide automated inventories of records that are ready to be moved to off-site storage, provide for cross-referencing, facilitate addition, deletion and changing of file headings, and provide a file charge-out system.

## A REVIEW OF LIBRARY SERVICES

The departmental Library serves as an information resource to the Department through its collections of specialized books, documents, reports and journals and its access to computerized databases and an international inter-library loan network. Current Library services include:

- circulation of materials - a variety of print materials including books, documents and journals are available on loan from the departmental Library collections. This service is available to all departmental staff
- reference and information - providing source materials and locating answers to information requests are services made available by accessing departmental and other library collections, literature-based databases, and outside agencies. The service is available to all departmental staff and is provided by the Reference Assistant through the Central Library. The two Regional Librarians provide a limited service to Correctional Centre staff and inmates.
- current awareness -
  - additions list - a bi-monthly subject guide to recent books and articles added to the Library. The additions list is sent



to all offices in the Department.

- selective list of periodical title pages - at present, this monthly list is only provided to satellite libraries.
- "key topics" - an annotated in-depth bibliography limited to a single topic each quarterly issue, distributed to middle and senior managers as appropriate.
- senior management profiles - a selective updating service provided by the Library staff for senior management as a means of alerting them to information and new publications information not always available through regular sources.
- interlibrary loans - no reference or current awareness service can be satisfactorily offered without the availability of obtaining needed information and materials from other libraries. The Library currently makes this service available to all departmental staff.

In addition to general departmental support, the Library has more specific involvement in various Divisions.

- Correctional Services interface - the departmental Librarian has responsibility for developing library services to correctional centres.
- Law Enforcement interface - the Library operates a film lending service for the Law Enforcement Division. This service is available to R.C.M.P. crime prevention units, community corrections staff and on a selective basis to other agencies.

- Staff College Learning Resources Centre interface - the Library is committed to assist in the development of the Staff College Learning Resources Centre. A proposal was recently presented to the Personnel Division for this project.

#### THE INFORMATION CENTRE: A WORKING PAPER

The objectives of the Information Centre are multifarious. Essentially, the Information Centre was established in order to be the focal point for automated information in the Department. A concept inherent to the Alberta Solicitor General's Information Centre, as well as to any Information Centre, is the concept of end-user computing.

The list of services which will be provided when the Information Centre is fully operational are outlined below.

- Provide access to the various departmental databases
- Serve in a consultative capacity by interpreting and converting information requests into data processing requirements
- Provide the training, assistance, and software and hardware tools necessary to support end-user computing
- Respond to adhoc information requests utilizing both manual and automated data sources
- Continue to design, program, and produce statistical management reports as required

- Participate in auditing databases to ensure quality control of the data ie. identify data problems and recommend solutions
- Produce computer graphics as requested
- Assist in the conversion of manual information systems which have potential research/management information value to computerized information systems
- Coordinate research/data processing activities when necessary
- Liaise with computer vendors and keep abreast of changing technology
- Continue to produce the divisional newsletter, "The Informer".

The Information Centre will physically resemble a "computer store". Several types of micro-computers and terminals will be located on work desks or carrels centrally placed within the Division. Printers and plotters may also be attached to, or located nearby, the Information Centre. To accomodate those persons needing to do their work at their own work areas, portable terminals and micro-computers will eventually be available through the Information Centre.

Information Centre staff offices and meeting/training rooms will be placed nearby so as to provide for easy access. As the emphasis of training courses put on by the Information Centre is to provide "hands on" experience, the training rooms will be equipped to handle the installation of various pieces of hardware. Some of the services and physical layout of the

Information Centre will be delayed until the relocation of departmental headquarters to the new building in the spring of 1985.

#### RESEARCH CONSULTING: A DISCUSSION PAPER

The Research Consulting Unit can provide several relatively specialized research skills. Several of these are presented below. This list should not be considered exhaustive.

- Research Design - The logical design of a research project is the key to ensuring that the research questions under investigation can be answered by the research project. The Research Consulting Unit can advise on experimental and quasi-experimental designs, time series designs and more traditional sample survey approaches.
- Questionnaire Design - Designing questionnaires is a specialized skill. The Research Consulting Unit can advise on the wording of questions to ensure their clarity. The unit can also assist with the layout of a questionnaire so that a professional appearing document is produced and so that the questionnaire can be used as an input document by data entry operators.
- Sampling - Good sampling is a pre-requisite for ensuring the applicability of research findings. Sampling is also necessary to minimize the time spent on data collection. The Research Consulting Unit can advise on sampling techniques so that the conclusions of the research can be generalized to the appropriate population.

- **Data Analysis - Multivariate statistical techniques** are powerful tools for examining relationships. These statistical tools have the added benefit over the more commonly used tabular techniques in that they can be applied to smaller data sets. The Research Consulting Unit can advise on the use of multivariate statistical techniques.
- **Report Writing - Unless the research report is clear, its message can be lost or misinterpreted.** The Research Consulting Unit can help with the preparation of reports to ensure they present research findings with clarity and brevity.

The list of services presented above primarily covers traditional social science research skills. It is obvious that there will be many assignments given to the Research Consulting Unit that do not fall into any of the above. Such problems may be quasi-operational and quasi-research in character. These problems, because they are not strictly technical in nature must be addressed by the Research Consulting Unit staff from the operating divisions acting in concert. Maximum cooperation will be required for their resolution.

#### INVENTORY OF IMB SERVICES -

##### INFORMATION CENTRE AND RESEARCH CONSULTING UNIT

This document describes the statistical and research reports currently and recently produced by the Information Centre and Research Consulting units of the Infor-

mation Management Branch. The information systems accessed by, or available through, these units are also discussed. Finally, the software products currently used by the units in processing and presenting data are summarized. A copy of this report may be requested through the Information Centre (427-0366).

##### INFORMATION REQUEST MONITORING AND PROJECT CONTROL FORMS

The Information Centre and Research Consulting Units recently developed new procedures for monitoring requests for information and for controlling information and research projects. These new procedures are based on two documents: the Information Request document and the Project Control document.

Information Centre and Research staff will use the Information Request form to record the details of all information requests they receive. This will help to monitor the groups' activities and identify areas in which new developments are required. This form will also provide a vehicle for the proper authorization of the release of departmental information. The Project Control form will be used to control more substantial projects. This second document places greater emphasis on the resources consumed by a project. Both these documents will be used as input sheets for data entry and subsequent data processing. The data from these documents will be the basis for quarterly reports on the activities of the Information Centre and Research Consulting Units.



## SOLICITOR GENERAL OFFICE SYSTEMS PROJECT

### Information Management Branch Systems and Information Services

The status of the department-wide office systems project is outlined in this article.

#### PHASE I - OPPORTUNITY REPORT

The objectives of Phase I of the Solicitor General Office Systems Project, the Opportunity Study, were:

- identification, definition of, and familiarization to departmental and divisional goals and objectives, communication patterns (internal and external), information handling processes, decision making processes, and administrative support requirements
- identification of key opportunity areas within the Department (by function and specific applications)
- development of recommendations on next phase strategies
- presentation of findings and recommendations to Senior Management Committee

The Opportunity Study was conducted using structured interviews with personnel throughout the department, observation of office procedures and practices, and documentation review. Based on the findings of this study, several recommendations were made.

1. Conduct data gathering studies within departmental headquarters - Edmonton for the purpose of developing a conceptual design of a common database structure to house and provide access to all forms of information (regardless of

media) maintained and utilized by the Department

2. Subsequent to the findings and recommendations of these studies, proceed with the introduction of valid representational office system technology into Edmonton headquarters
3. Conduct the data gathering studies at selected pilot locations within both Correctional Centres and Community Corrections
4. Defer detailed analysis of office system requirements of the operations area of Motor Vehicles until after the implementation and stabilization of MOVES
5. Investigate the feasibility of replacing the current TWX terminals within Highway Patrol with a low cost visual display terminal, such as a display phone.
6. Establish a steering committee structure for the further study and potential implementation of office systems within the department (i.e., Senior Management Committee)
7. Establish a study team structure to conduct the data gathering studies
8. As all aspects of the use of information are being investigated and defined, it is critical to the ultimate success of understanding and utilization of information as a departmental resource that the major functional units delivering information services be aligned (at least for the duration of the study) within a single organizational structure
9. Investigate the feasibility of implementing within the

department, aspects of the Information Centre concept as a service and support organization in the access and use of information

10. Establish and develop a word processing support resource to provide a variety of support services to the divisions of departmental headquarters utilizing word processing
11. In the interim, maximize the utilization of the current Mohawk word processing equipment for word processing and other office systems where applicable
12. Develop and implement an education strategy to all working levels of the department on the capabilities, trends and application of office system technologies and tools.

#### PHASE II - DETAILED ANALYSIS

The next phase of the office systems study is the execution of data gathering studies to provide the basis for the development of a common database structure to house and provide access to all forms of department information. The initiation and execution of this critical phase was one of a key rationale for the establishment of the Information Management Branch. The objectives of the detailed analysis stage are to:

- Determine and document current storage, retrieval, and utilization needs of all information forms within the Department
- Identify and implement near-term solutions where feasible and appropriate.

To accomplish these objectives, the Information Management Branch

has begun conducting a four-study approach which will integrate results into a common solution. The studies focus on four critical areas:

- records management
- document production
- data processing applications
- knowledge worker survey

Phase II was initiated in June of this year and is expected to continue until the end of the 1984/85 fiscal year. Expected results of this phase include:

- inventory of the location and content of all information and records areas
- establish basis for a common classification and indexing system
- review of all administrative workflows
- identification of potential satellite information areas
- identification of potential applications of word processing
- identification and definition of all potential data processing applications
- documentation of information interfaces internal and external to the department
- determine current utilization of departmental information
- identification of potential and feasible near-term solutions.

AN OVERVIEW

Information Centre Branch  
Systems and Information Services Division

"A Compendium of Criminal Justice Statistics: Supplement 1983", the third in a series of publications reporting on the criminal justice system in Alberta, concentrates on the period 1978 to 1982. This compendium reports statistics on the three stages which make up the criminal justice system: law enforcement, courts and corrections.

Unfortunately, it is impossible to attain any sort of a strict correspondence in data among the three stages because each collects data employing a different unit of analysis. Law enforcement data make use of offences as the unit of measurement, court data use the court case as the unit of measurement, and corrections data employ the correctional case as the unit of measurement. Offences are incidences which were reported to the police and have been determined through police investigation to have actually involved violation of a law. A court case is a trial, which could involve several charges and several verdicts. A correctional case is the time period between the admission of a person to an institution either with remanded charges or as a sentenced inmate, and the time at which that person receives a final release. A correctional case is not necessarily the same as an individual because one person could have more than one correctional case during the period under analysis. Because of these differing units of analysis, tracing the flow of information through the criminal justice process is not possible. Data from each stage must be interpreted in isolation from other stages.

The source for the law enforcement data reported in this compendium is POLIS II, the police information system for Alberta. The data cover twelve jurisdictions for the five calendar years from 1978 to 1982. Municipalities with populations in excess of 15,000 were singled out for individual reporting. The words "Police Department" after the name of the municipality indicate that police services are provided by a local municipal police department and the initials RCMP indicate that policing is provided by the Royal Canadian Mounted Police. The jurisdictions for which information is reported include: Calgary Police Department; Edmonton Police Department; Fort McMurray RCMP; Grande Prairie RCMP; Lethbridge Police Department; Medicine Hat Police Department; Sherwood Park RCMP; St. Albert RCMP; municipalities with a population between 1,500 and 15,000 (includes local municipal police departments and RCMP); rural Alberta RCMP which includes municipalities with populations less than 1,500 and rural areas; and Alberta total (includes local municipal police departments and RCMP).

Information for the court tables was taken from Alberta Attorney General statistical reports developed from Crown Counsel case reports. The data in the court tables covers court cases heard in the 1980-81, 1981-82 and 1982-83 fiscal years. According to the Alberta Attorney General, not all cases being heard are reported. The following lists the types of cases which are included:



1. all applications for extraordinary remedies, for example if a judge is asked to hear a case which is actually outside his jurisdiction (a rare occurrence);
2. all cases of indictable offences and Stated Case appeals (a special appeal in which the allegation is that the judge erred on a legal issue rather than the facts) disposed of in the Court of Queen's Bench;
3. all matters disposed of by the Court of Appeal and the Supreme Court of Canada;
4. all cases of indictable offences in the Provincial Court except:
  - a. those enumerated in Section 483 of the Criminal Code (trial by magistrates), including theft \$200 and under, gaming and betting offences, and any fraud not exceeding \$200;
  - b. preliminary enquiries in which the accused is committed to stand trial;
5. preliminary enquiries where the accused is discharged;
6. charges that are withdrawn completely and not replaced with any other charges.

The data reported in the corrections section of this publication were extracted from the research file of the Correctional Management Information System

(CoMIS). The system contains a variety of data concerning correctional cases admitted to provincial correctional and remand centres throughout the province.

The correctional cases selected for reporting in the compendium were based on correctional cases admitted to one of Alberta's correctional or remand centres at any time between January 1, 1980 to December 31, 1982. The tables which report release statistics are an exception. The correctional cases selected for those tables were released from a correctional or remand centre at some time between January 1, 1980 and December 31, 1982. Alberta's centres during that time included Belmont Correctional Centre, Bow River Correctional Centre, Calgary Correctional Centre, Calgary Remand Centre, Edmonton Remand Centre, Fort Saskatchewan Correctional Centre, Lethbridge Correctional Centre, Nordegg Correctional Centre, Peace River Correctional Centre, and St. Paul Correctional Centre. The corrections data are reported by calendar year.

Copies of the compendium have been distributed to most divisions of the Solicitor General as well as to government departments, universities and libraries in Alberta and other parts of Canada. A limited number of copies are still available for distribution. If you require information from the compendium or would like to know where to find a copy, you can contact the Information Management Branch of the Systems and Information Services Division.

## NETWORK PERFORMANCE AND MEASUREMENT

### Hardware Support Branch Systems and Information Services Division

Have you ever been able to predict that something was going to happen before it actually occurred? Well, to some degree, we will be able to do just that with our Tesdata Extra Smart Network, Performance and Measurement System. This system allows our network staff to monitor communication lines, controllers and terminals and alerts the operator to take corrective action before you, the user, are aware of a problem. It also allows us to evaluate current communication facilities and project their future growth and plan for the future.

This system was installed in April of this year and currently monitors 16 lines that supports the new Motor Vehicles System. Eventually, all Solicitor General communication lines will be connected to this device.

The system is made up of three hardware components. The first is called a LIM Chassis (Line Interface Module) and is installed at PWSS Central Computing Centre. The second and third components are called a Master Workstation and Analytical Workstation respectively. Both are located on the 11th floor of Park Square in our Network Control Area.

The LIM Chassis can contain one to eight LIM Boards with each board supporting up to four communication lines. The cables from the Chassis are connected between the communication modem and the Front End Processor. The LIM Chassis has two main functions. First, it collects and calculates measurements of data communication activity over the lines being monitored. Secondly, it allows the

Master and Analytical Workstation to access the stored measurements from the Chassis and it allows the Master Workstation to download new measurement parameters.

There are 26 captured measurements collected by the LIM Chassis. They range from response time over threshold to the number of retransmissions. In addition to these, there are 21 composite measurements ranging from average response time to percentage of time the line was down.

The Master Workstation is comprised of a 40 MB disk drive, a floppy diskette drive and a terminal. The floppy drive is used to load current and future system software from Tesdata. The 40 MB disk drive is used to store all the measurement statistics downloaded from the LIM Chassis. The terminal allows the operator to enter system commands or view the measurement statistics using pre-determined report formats.

The Analytical Workstation is connected to the Master Workstation and is comprised of a colour terminal, a floppy diskette drive, a dot matrix printer and an eight pen graphics plotter. The terminal allows the operator to perform many pre-determined functions such as real-time display of line outages, line inactivity (when activity should be present), control units which become inoperative, line errors evidenced by abnormal amounts of message retransmissions and degraded terminal response time. The operator is alerted when any of these exceed the pre-set parameters giving him the opportunity to act before the problem

becomes a system failure or a user complaint.

The Analytical Workstation also has very extensive Business Graphics and an electronic spreadsheet package. This allows the operator to compare and present current or past measurements in colour bar

charts or pie charts. It will be a very useful tool in making any network decisions.

With the increased load in telecommunications this year, the equipment will prove its importance in a very short period of time.

## THE YOUNG OFFENDERS RESOURCE MANAGEMENT SYSTEM

### Application Software Branch

The Federal Ministry of the Solicitor General, as part of the implementation of the Young Offenders Act, has made available funding to support the development of information systems in the area of juvenile justice. Through both the Young Offender Unit of the Ministry of the Solicitor General and the Canadian Centre for Justice Statistics, provinces and territories can forward proposals for consideration under this funding program.

The Alberta Solicitor General forwarded a proposal to develop a Resource Management System to support the administrative functions in the various Young Offender facilities within Alberta. This proposal has been reviewed by PAC-TAD, the Advisory Committee to the Canadian Centre for Justice Statistics, and the Federal Review Committee which have recommended approval for funding as identified in the funding agreement. A formal funding agreement is currently being drawn up for review and signature by the Federal and Alberta Solicitor General Departments.

This Resource Management System will be Phase 2 of the total Young

Offender System Development and will have as its overall objectives:

1. To satisfy the necessary control and audit requirements to support the Federal/Provincial cost-sharing agreement for Young Offenders, utilizing the offender case tracking system developed in the first phase to determine the eligibility for cost-sharing and the services provided to the Young Offender.
2. To provide for the efficient utilization of resources in the Young Offender program through automation, where possible, of the various Administrative functions in the Young Offender facilities.
3. To establish criteria in conjunction with the offender case tracking of Phase 1 to integrate and evaluate the effectiveness of the resources utilized in the Young Offender program.

The Resource Management System will include a comprehensive review of the processes and compo-



nents that create and maintain the various administrative and financial records to support the Young Offender program. The processes and components will be analysed from both the Young Offender unit and "head office" perspectives. In this way, the system under consideration will integrate with existing computerized applications currently used within the Alberta Solicitor General, namely, the Financial Information and Payment of Accounts system (based on recently implemented MSA packaged software), the Personnel/Payroll Information System (which includes Employee and Position data) and the Budgeting System (which includes basic budget recording facilities). Indeed, it is the intent of the Resource Management System definition to ensure that these existing computer applications are utilized to the fullest extent and to determine, as necessary, any enhancements to these applications in support of the Young Offender program and cost-sharing agreements.

A general outline of the various processes and components to be included in the system review is included following. A key objective of this review is to determine the degree of automation possible from a practical, cost-effective standpoint.

1. Cost Sharing Component - a breakdown of the cost-sharing agreement will be undertaken
  - a. to ensure the offender case tracking system satisfies the offender service aspects of the agreement and
  - b. the financial audit and control requirements are present to support the formal Claim and Audit Report.

2. General ledger and Financial Reporting - the Alberta Solicitor General is the pilot department for a new departmental system based on MSA packaged software. A review will be undertaken to determine how the new software can be utilized to meet the Young Offender program requirements. This review will include any modification to the Chart of Accounts and also a determination of the applicability to "project" reporting requirements for cost shareable activities on an ad-hoc basis related to the Young Offender program.

3. Statistical Reporting - in conjunction with the offender case tracking system, a means of combining financial and non-financial data will be explored in order to provide various cost-effectiveness and other management control statistics. Again, it is anticipated that the recently implemented MSA packaged software will be reviewed as to its applicability in this area.

4. General Accounting - at the individual Young Offender facility there is a requirement for a simplified general ledger, together with possible sub-ledgers or registers covering fines, offender trust accounts, accounts receivable and cheque registers. The requirements in this area are straightforward and the specific definition of these requirements will determine the applicability of the MSA software in this context.

5. Staff Shift Scheduling and Attendance Recording - each young offender unit is required to maintain a 24-hour

shift roster. A review will be undertaken of the parameters used in developing the shift schedule and the means of recording attendance against this schedule, together with the associated absenteeism reports, etc. An interface is anticipated in this area with the existing Personnel/ Payroll information system.

6. Inventory and Fixed Assets - procedures for the recording and valuation of inventories and fixed assets will be determined. This will support both the individual Young Offender unit and departmental requirements, particularly as related to the cost-sharing agreement.
7. Payment of Accounts and Supply and Services Expenditure Control - the recently implemented MSA packaged software for the departmental Financial System includes provisions for the budgetary control and payment of accounts monitoring from a departmental perspective. A review will be undertaken at the Young Offender facility level to identify the specific purchasing and expenditure control requirements and to determine the applicability of the MSA Financial System in this environment.
8. Budget Preparation - a review will be undertaken to determine the applicability of "spread sheet" and budget preparation software currently available. This review would also include the means of

interfacing the budget preparation activities with the existing Financial and Personnel/Payroll systems.

9. Office Automation - in conjunction with the review of all the processes and components in the Young Offender system, the concept of office automation will be incorporated. This will include the applicability of word processing, electronic mail and other current technological facilities that can contribute to office efficiency.
10. Contracts and Grants - information concerning contracts and grants as applicable to the Young Offender program will be reviewed.
11. Vehicle, Equipment and Escort Services - the detail costing aspects of vehicles and other equipment utilized by Young Offender units or Escort Services will be reviewed. It is anticipated that the basic recording and valuation requirements will be identified to support the cost-sharing agreement.

In summary, the Resource Management System components to be reviewed will include, in conjunction with the offender case tracking system, the requirements to support the Federal Provincial Cost- Sharing agreement together with the management information necessary to effectively manage the Young Offender program, resources, and facilities.



## LIBRARY NEWS & REVIEWS

Information Management Branch - Library Services

5th Floor, Melton Building (427-3421)

### Some Recent "Best Sellers" on Management

- The One Minute Manager (1982) by Kenneth Blanchard - A new management technique, written as a brief allegory.
- Putting the One Minute Manager to Work (1984) by Kenneth Blanchard - The One Minute concept in real life situations.
- How to Manage in the Public Sector (1983) by Gordon Chase - A personal, informal approach intended as a guide to the public sector environment.
- In Search of Excellence: Lessons from America's Best Run Companies (1982) by Thomas J. Peters - Eight basic practices found to be characteristic of successfully managed companies.
- Think Proactive: New Insights into Decision Making (1983) by A.P. Martin

### Readings on Automation and The Information Society

- The Information Society as Post-Industrial Society (1982) by Yoneji Masuda
- Megatrends: Ten New Directions Transforming Our Lives (1982) by John Naisbitt
- The OA Mirage or Planning for the integrated office of the future may be fun, but it's no substitute implementing applications that support business needs (Feb. 1984) in Datamation
- Buying a Micro: What the Salesman Hasn't Told You (April 1984) in Office Administration and Automation
- Office Automation: A User Driven Method (1982) by Don Tapscott

### A New Magazine

- The Time Management Report

The library now subscribes to this brief, monthly report on personal time planning for managers.



## AN OVERVIEW OF CRSD PROJECTS

### CORRECTIONS PROJECTS

An integrated approach to systems development and office automation is being taken to aid in the implementation of the Young Offenders Act. Pilot study projects are being initiated at Correctional Centres (Edmonton Remand, Young Offenders Centre) and specific Community Corrections offices over the next several months.

Two documents are being prepared for the use of Correctional Services. The first is an automatically generated document containing data on correctional officers' uniform sizes and dates of issue and the second contains the same size data but rather than reporting on when various items of clothing were issued, reports on uniform items which have been returned. Both of these are for the internal use of Correctional Services Division.

Research Consulting is assisting staff of the Belmont Correctional Centre conduct a research project, the objective of which is to predict which inmates are likely to violate the conditions of a temporary absence pass. Research Consulting's role has been to assist with the selection of an appropriate sample for the project and will later involve assistance with data analysis.

Research Consulting assisted Correctional Services in reviewing their procedures for purchasing and issuing prescription drugs. This study examined the cost of several alternative strategies.

The Young Offender Case Tracking System will be fully implemented in July. User testing and training has been taking place for both the Detention and Community Corrections functions in the system. Minor modifications are being made to the applications programs as a result of the user testing and training. The implementation of the system for Young Offender custodial facilities throughout the province will be phased in during July and for the major community corrections offices in August.

The necessary hardware and communications network is being installed in the Young Offender facilities.

A decision has been made to test either display phone or dial up terminals at the remote community corrections offices to service the young offender cases. Use of this pilot equipment will determine whether it is feasible to use such equipment on a production basis.

A proposal has been forwarded to the Federal Solicitor General, Young Offenders Unit to develop a Resource Management system for young offenders. The details of the Resource Management system are described elsewhere in this issue of The Informer. The proposal has been accepted for partial Federal funding under a Young Offender Systems Development Contribution agreement. Completion of the necessary formal agreements and the like is now underway prior to the actual systems development cycle.

## MOTOR VEHICLES PROJECTS

A significant milestone for the MOVES Project was celebrated with a birthday cake on May 25. The date had been marked on project team calendars' and posters at the coffee machine for the last six weeks as 'TVD'. The acronym stands for 'Training Version Day', and it denotes the first time that all system functions which will be used at a Motor Vehicle front counter were available for demonstration and training. Some of the code, particularly in the Vehicle Registration subsystem, is new and hence less stable than the older code but the shape of the system, as it will be used in the field, is in place.

The development work remaining consists of finishing the Vehicle Registration and Enforcement subsystems, specifically functions used at head office or in nightly processing. This work is scheduled to be completed while the training of field staff is taking place.

An intense training program is now underway which consists of classroom-type training first for the Motor Vehicle training staff and then for issuing agents. This will be followed by subsequent training sessions in many field locations. Training is scheduled for the next three months, proceeding with successively greater detail.

A training database has joined the production and test databases in our MOVES environment. The conversion programs were run to place approximately 50,000 driver and vehicle records from our old system into the new database to create a more realistic training environment. Conversion efforts are now concentrating on the Pending File (rejected transactions) and the Inventory file from the old system to determine to what extent the data can be converted by computers.

The network to support the Motor Vehicle system is currently being expanded to all 200 plus issuing outlets in the province. Phone lines, modems, protocol converters and terminal equipment are all expected to be in place by mid-July. Terminal equipment consists of multi or single-station mini-computers, directly connected synchronous and asynchronous terminals, dial-up terminals, and cut-form and continuous-form printers.

The current schedule calls for a mid-August quiescence of the current MVD registration system; conversion occurring immediately thereafter, with the first release of the new system being available on August 21. Release 1 is the basic system needed for field operations. Subsequent releases will occur in September and October as they are needed and as system stability permits.

Development of MOVES resulted in a list of possible enhancements being documented which are identified as Phase IV of MOVES. Portions of the list were approved for development this fiscal year; including a generalized report writer, a de-debugging package, expanded support for default judgment and networking monitoring. Design of Phase IV components has commenced and will continue for most of 1984.

Over 1.7 million vehicles have now received their new licence plates and are officially slotted in a staggered renewal period. This process was handled very smoothly by MVD from a central location, with a minimal disruption to the public despite the volume of work. Registration of some vehicle categories (primarily large trucks) which had an extended registration

deadline of June 30th, will complete the issue of new plates.

A project to enhance several report programs to reflect classification code changes on the current Motor Vehicle file has been initiated by the Information Centre. This enhancement will assist divisional management during the final stages in the initiation of the new MOVES system.

1983/84 fiscal year impaired driving conviction and suspension statistics form the basis of a report

which examines the state of impaired driving in Alberta. This report is currently being produced.

The Information Centre responded to five information requests made during the past few months from government departments and outside agencies for information from the current Motor Vehicle files.

The March, April, and May Motor Vehicle cash transaction log reports were recently compiled.

#### LAW ENFORCEMENT PROJECTS

A major project in the establishment of a records management satellite office on the 7th Floor, Melton Building is near completion. This included a review of all administrative and operational files, development and implementation of a new classification system and the preparation of a training and procedures manual. The satellite office is currently being staffed by personnel from the Records Management Unit.

The 1983/84 Alberta Highway Patrol Annual Statistical report was recently completed. This report compares enforcement and general activity during the present fiscal year to activity carried out by the patrol officers during the previous fiscal year.

Final changes to the 1984 "Crime Prevention Programs in Alberta" are being completed. The updated Inventory will be available by August, 1984.

#### DEPARTMENTAL SUPPORT PROJECTS

The Budget and EDP Plan are now being worked on for the 1985/86 fiscal period. With the addition of dedicated processing power and front ends, considerable adjusting will be required to adequately support the program budgeting concept.

The RFP for the Departmental asynchronous terminal equipment and associated printer has been chosen with the recommendation that it be given to PWSS for final acquisition

approval. These devices will fill the remaining needs of MOVES and the Young Offender development.

The network plan for the Department is complete and installation of equipment (MDS and IBM type) is well underway to co-ordinate and support the implementation of MOVES and Young Offender system. Installation of local telephone trunks and dedicated circuits to support the asynchronous equipment



is also well underway and installation is scheduled for July.

The Department's technical support staff have continued to work closely with technical and software support staff in PWSS in the monitoring and advancing of our dedicated processor. The Department is now running both the current Motor Vehicles system and the MOVES Development on the Amdahl 5860 currently using up 25 gigabytes (25,000,000,000 bytes) of DASD and 6000 tapes. New software packages are continuing to be assessed with staff from PWSS.

The review of the utilization of Mohawk word processing within the Melton Building has been completed. An upgrade configuration has been proposed which will provide increased functionality and performance along with the potential for adding additional user work stations. The upgrade is currently being implemented.

Recently announced MDS office system products such as the spreadsheet, report writer, data entry and the like have been acquired and are currently being tested for

potential application within the Department. Several of the software packages were used in the development of a prototype Fixed Asset system within the Finance and Administration Division.

A major proposal for the development of a Learning Resource Centre at the Solicitor General Staff College was presented to Personnel Division management. The study will be conducted by the staff of the Departmental Library.

The next phase of the department-wide office system study has been initiated with the Minister's office. Correctional Service (15th Floor, A. E. LePage Building) has been identified as being the initial area of study.

A general Information Centre is being established on the 4th Floor, Melton Building. In addition to the acquisition of several micros, work areas are being set up to facilitate their use and orientation to their capabilities. Some of the equipment will be portable to facilitate users borrowing them for utilization in their own work areas.

#### ANSWERS TO "INSIDE TRACK"

- |                |                                 |
|----------------|---------------------------------|
| 1. AWKWARD     | 11. BREATHTAKING                |
| 2. SYNONYM     | 12. PROPORTION                  |
| 3. ASSASSINATE | 13. SOLILOQUY                   |
| 4. FOLKLORE    | 14. CANDIDNESS                  |
| 5. CRYBABY     | 15. CORROBORATE                 |
| 6. WEREWOLF    | 16. COMPLETELY                  |
| 7. WORKROOM    | 17. EXTRAMARITAL OR ULTRAMARINE |
| 8. MONOTONY    | 18. PHYSICIST                   |
| 9. GRIDIRON    | 19. HANGNAIL                    |
| 10. FOOTSTOOL  | 20. POLYSYLLABIC                |

## OTHER SISD EVENTS

### PARTICIPATING IN MVD GOLF TOURNAMENT

On June 10, 1984, a number of SISD and other SG personnel were lined up in the Annual MVD Golf Tournament to show who's who in the "Solicitor General Wide World of Golf". Although the event was well organized, Bob Canart's foursome couldn't figure out why they didn't rate an early arrival on the 19th hole, so they traded starting spots with Allan Hart's team.

Rheal LeBlanc's group in the number one spot lead the way on the course at Sherwood Park but Brian MacNeil's team took the victory in the end. SISD didn't come off too badly, however, as Karen Martin of Allan Hart's foursome won the Ladies' Low Gross.

### OFF TO THE RACES>>>

Once again, the gallant gang from SISD are off to enrich their vacation funds by checking out the thoroughbreds at Edmonton Northlands on August 16, 1984. This will be the third year of "The Out-To-Lunch Bunch" Feature (Named after our Gourmet Club, of course!) where we all go as a group, have an excellent buffet dinner, enjoy the window view of the track, and commiserate on the great bet we had in mind but didn't make and the one we did have but how were we to know the horse didn't like mud.

### For Your INFORMATION

National Crime Prevention Week, sponsored in this province by "Albertans for Crime Prevention", takes place November 4 to 10, 1984.

\* \* \* \* \*

Offences which are reported to the police and found to have occurred are called actual offences. Offences can be cleared (or solved) by charge or otherwise. An actual offence is cleared by charge if a charge is laid by the police against at least one person. When an offence is cleared otherwise, there must be enough evidence to support the laying of a charge against an identified offender, but circumstances dictate that a charge not be laid. These circumstances include such things as the death of the offender or a witness, an extra-departmental directive, committal of the offender to a mental hospital, police discretion, diplomatic immunity, refusal of a complainant to prosecute, the offender is already serving a sentence, or the offender is in a foreign country.

## MINDTWISTERS

Welcome to Logicland. If you get at least two of the following questions right, you deserve Honorary Citizenship, if not a raise. Answers in the next issue of The Informer.

1. Four academics - a logician, a mathematician, a physicist, and a parapsychologist - were travelling to a convention on a train in Scotland. Through the window they all saw a lone black sheep on a hill.

"Look!" cried the parapsychologist. "All sheep in Scotland are black."

"You can't conclude that," replied the physicist. "The best we can say is that some sheep in Scotland are black."

"Too vague," countered the mathematician. "What you should say is that at least one sheep in Scotland is black."

"You're all wrong," said the logician. "All we can say is that at least one sheep in Scotland is black on at least one side."

Their conversation was overheard by a puzzlist across the aisle. He leaned over, tapped the logician on the shoulder, and said.... (Finish the sentence.)

2. The Barber of Seville shaves all those men and only those men of Seville who do not shave themselves. If the barber is also a resident of Seville, who shaves the barber?
3. Epimenides, a Cretan, said, "All Cretans are liars." No Cretan both lies and tells the truth.

By a strict application of logic to the above two statements, what can we conclude about Epimenides? (a) Epimenides is a truth teller, and not a liar. (b) Epimenides is a liar, and not a truth teller. (c) The puzzle is a paradox - i.e., if we assume Epimenides is a truth teller, then he must be a liar, and if we assume he is a liar, then he must be a truth teller.





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## LOOKING AHEAD: PLANS FOR 1985/86

### Systems and Information Services Division

The time of year to develop a budget and EDP plan for the fiscal year 1985/86 has just passed (from a Departmental Perspective) and Treasury is now digesting the results. There are three major trends noticeable in the EDP plan:

1. We are projecting a decrease in large system development, concentrating more on enhancements and small projects;
2. We will be experimenting more with distributed intelligence for integrated word processing, data processing, inter and intra office communications, and dumb terminal replacement;
3. Our use of distributed equipment has increased dramatically as the Department has regionalized several operations and more functions are moved to field locations from head office.

These three items can be differentiated in the EDP plan but they are in fact all part of the response to a single stimulus. The nature of the Department's operations, namely Law Enforcement, Corrections and Motor Vehicles necessitates a province-wide perspective to service delivery.

To provide the range of services required, there are several hundred office locations strategically located around the

province. The need for communication and standards of operation is great among these offices. The need for placing the capability to provide all possible services in the remote locations is also very important. These requirements have been addressed firstly by the creation of central databases for standardization of data and operations, and are now being addressed by distributed terminal access and further by local processing.

The moves made from a data processing standpoint in response to these needs was reflected in a heavy expenditure on central development and operating costs, followed by a levelling of central costs and an increased rate of distributed equipment and communication costs. If James Martin's projections continue to come true,

we will see a further reduction in central costs and an increase in 'end-user' computing costs.

The impact of these Departmental changes on the Systems and Information Services Division have been significant. The task of supporting real-time databases, networks and processing cycles is much different than operating a batch environment. There is a requirement for real-time response to problems; which dictates more and better qualified staff and more sophisticated equipment.

Our Departmental EDP plan is a reflection of what is happening in the industry, and is driven by the timing of the Operating Divisions' requests for the use of new tools to help them provide their public service.

Contributions to THE INFORMER are welcome from our readers, particularly regarding announcements, articles, or events which affect a program area within the Alberta Solicitor General. Articles offered for publication or requests to be added to our distribution list should be directed to:

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CONTENTS:	Page
LOOKING AHEAD: PLANS FOR 1985/86.....	1
CRIME TRENDS AND OTHER INFLUENCES: IMPLICATIONS FOR CRIME PREVENTION PROGRAMS.....	3
INMATE CASE FILE SYSTEM....	7
NETWORK/HARDWARE HELP DESK.	8
WHO KNOWS WHERE THE TIME GOES?.....	10
LIBRARY NEWS & REVIEWS.....	13
THE YOUNG OFFENDERS INFORMATION SYSTEM.....	14
OVERVIEW OF SISO PROJECTS CORRECTIONS PROJECTS ....	16
MOTOR VEHICLES PROJECTS .	17
LAW ENFORCEMENT PROJECTS	18
DEPT. SUPPORT PROJECTS ..	19
ANSWERS TO "MINDTWISTERS"..	20
FAMOUS LAST WORDS.....	20
FOR YOUR INFORMATION.....	20



## CRIME TRENDS AND OTHER INFLUENCES:

### THE IMPLICATIONS FOR CRIME PREVENTION PROGRAMS

#### Information Centre Information Management Branch

People today are very concerned over the prevalence of crime in their communities and they expect authorities to do something about it. In the recent past, this concern created a demand for more policing which is now being transformed into an argument for stronger sentences.

#### Community Crime Prevention Programs

Police and law enforcement agencies have responded to this trend by appealing to the communities for increased assistance in dealing with deviance and crime in the neighbourhood. The reasons for this response are as follows:

1. Cost - It is very expensive to run the criminal justice system - police, court, and prison costs have risen tremendously. It costs over \$50,000 a year to keep a person in prison and to build and maintain a Federal medium size prison would cost at least \$1.6 billion over the next ten years.
2. Ineffectiveness of old methods - Evaluations of criminal justice programs such as rehabilitation programs demonstrate a poor degree of effectiveness considering the costs involved. Research has also shown that most traditional patrol practices of police departments have very little impact on crime. Therefore, most police departments are

exploring various community crime prevention programs for more effective results.

3. Accountability - The public wants more accountability from the criminal justice system, but the police also believe that if you want better service, you have to get involved and show your support.
4. Results - It appears that community based crime prevention programs, when properly conducted, actually work.

Before discussing why community crime prevention programs may be a more effective response to this public concern, we should look at the reasons for this public concern.

#### The Crime Rate

Citizens gain their knowledge about crime from the release of U.C.R. and other official police statistics which, until the very recent past, have reported a considerable rise in crime.

Thus, when crime rates increase, it is believed that:

- More people are committing crime.
- Certain criminals are committing more crimes.
- Offenders are spending less time "locked up".

What is usually missing from public knowledge, however, are the problems associated with official

statistics. Many factors unrelated to actual criminal activity can affect the official crime rate.

For one, the more police there are available, the more crime is noticed which causes a rise in crime statistics. As well, the implementation of a successful crime prevention program is likely to initially cause crime rates to increase as citizens are more knowledgeable about what to report which causes an increase in police action. This then has the effect of increasing citizen reporting as they perceive that the police are more responsive to their concerns.

Thus, to better determine the extent of the problem, alternate measures of crime need to be explored in addition to the official crime rate.

### Victimization Studies

Another method of evaluating changes in crime involves the use of victimization studies. These studies are an important complement to official statistics as respondents are asked to describe both reported and unreported crimes in which they have been victimized and their reasons for not reporting the incident. While victimization surveys have limited applicability since they are not useful for cases where the respondents do not know they are being victimized (consumer ripoffs and other white collar crimes) or where the victims cannot report their victimization (homicide), they are very useful for showing changes over time.

An examination of recent U.S. victimization studies figures

reveals an interesting development. These studies show little growth in victimization but note a definite increase in reporting. That is, people appear to be more likely to call for police intervention rather than dealing with the problem on their own, particularly for domestic disputes. This has caused some speculation that the changes in the crime rate may actually be more of a reflection of a change in attitudes rather than more criminal activity.

A recent victimization study done by Solicitor General - Canada also revealed that over 58% of the offences were not reported to the police. This clearly shows how increased reporting could dramatically alter the official crime rate. This varied considerably by the nature of the offence with the least reported being theft of personal property (29% reported) while motor vehicle reports were the highest (70%). This is largely due to the fact that victims needed to report the crime to the police if they wished to collect on their insurance. Therefore, crime tends to get reported when there is the likelihood of personal gain.

Other general reasons for not reporting included:

- Considered offence too minor. It seems that people are willing to put up with a certain degree of crime and/or the victim did not feel it was worth the bother of reporting.
- Police inability to do something about it. While regard for the police is high, there is a very accepting attitude of police limitations. For example, unless people are insured, they are not likely to report minor break and enters



as they don't believe the police will be able to find the offender or their goods.

With regard to domestic and sexual assaults, reasons for not reporting include:

- Lack of Action People felt that the police could not help and nothing could be done to solve the problem.
- Concern over attitudes Many people, particularly women, expressed concern that the resulting encounters with police and the rest of the criminal justice system would be more traumatic than the actual offence.
- Revenge Concern was expressed that if legal action was initiated, the offender would come back and hurt the victim even more than before.

These attitudes are important to note as changes in official policy can also increase the official crime rate. An example of such a change in policy could be a mandate for police to lay assault charges in domestic disputes rather than the women themselves having to lay the charges.

Therefore, if changing attitudes and increased reporting can be responsible for shifts in certain crime categories, this has implications for community crime prevention. The police then need to be aware of what types of programs are really needed and whether alternative community measures, such as mediation support, may be more effective responses rather than increased patrolling.

## Fear of Crime

In Canada, material losses from crime over a year period (1981) amount to over \$431 million or approximately \$167 per incident. While this amount may seem very small, its loss falls very heavily on particular categories of victims - such as women and the elderly, and therefore its real impact and relative loss is very high. In addition, where the vulnerability is high, the concern and fear of crime is also high.

Results of the Canadian victimization survey also found that in 1981 there were more than 700,000 personal victimizations (sexual assault, robbery and theft of personal property) and almost 900,000 household victimizations.

This report pointed out that:

While in the public consciousness crime is generally equated with violence, in the experience of Canadians, crime is rarely violent. Canadians are far more likely to be victims of crimes against property than crimes against the person.

Fortunately, for most people in Canada fear of crime is also relatively rare. It is not really a fact of everyday life except in the case of women and the elderly. As mentioned, this fear is related to their vulnerability or lack of redress rather than actual incidence of being victimized.

Research has shown that fear is debilitating and usually causes people to withdraw rather than to actively pursue solutions. This is also shown in surveys done on volunteers involved in crime prevention programs. These studies



have found that participants were more likely to be people who are active in community affairs rather than people who are afraid of victimization.

Therefore, the focus of crime prevention programs for these groups should not really be on attacking crime but on addressing the vulnerability of these groups.

### Successful Programs

As mentioned earlier, crime prevention can work effectively against crime and usually has the extra benefit of increasing neighbourhood cohesiveness. Not all crime prevention programs work, unfortunately, and evaluations are necessary so that valuable volunteer time is not wasted which could be better directed into those types of programs that do work.

The most successful crime prevention programs tend to have the following characteristics:

- Reduction of opportunity for criminal activity. Programs involving target hardening, such as the better locks installed as a result of home security checks, have demonstrated that criminal activity is reduced.
- Crime problem is correctly identified. When victimization studies and crime analysis are used as the basis for intro-

ducing a program, more effective results are realized that when a program is introduced just because it sounds good.

- Determination of who is perpetuating the activity. Community crime prevention programs tend to be more successful against amateurs than against professional criminals.
- Effective program involvement. Programs, like Neighbourhood Watch, are far more effective when they are run actively and in a co-ordinated role with the police. The most successful of these programs maintain ongoing involvement with their volunteers through newsletters and make the volunteers feel that they have made a difference.

### Conclusion

Many factors influence the rate of crime in Canada and these need to be understood if effective means of combatting the problem are to be introduced. Community crime prevention programs are proving to be a key weapon in the police arsenal. They are not a cure-all for the total problem but they are very effective in a number of cases and have the added benefit of giving the participants involved the feeling that they are really accomplishing the task of making their neighbourhoods a better place to live.

## INMATE CASE FILE SYSTEM

### **Records Management and Office Automation Unit Information Management Branch**

In July and August of this year, an implementation team comprising Correctional Services and Records Management staff introduced the new Inmate Case File System to all the province's correctional centres.

The new system is the product of some four years' study and committee work. Essentially, it requires that only one file exist per inmate (exclusive of medical files); that the file be organized in a standard manner in a standard folder; and that control over file maintenance rest with each correctional centre's records staff.

Backed by detailed policy directives, the new case file system was operational in Alberta's correctional centres by August 24. The target date had been late May, but delays in shipment of equipment and supplies and manufacturing errors in the construction of the file folders meant that the project had to be postponed.

The supplies ordered for the new system include pressboard folders for inmates sentenced to 30 days or more, and manilla folders for those with sentences of less than 30 days, remanded inmates, or inmates on the Fine Option program. The pressboard folders are the same as the ones used in the federal system; expandable and durable, they are divided into four sections and include a clear mylar pocket for photographs. The cost of these folders (\$3 each) prohibited their use for all inmates, so the manilla folder was introduced for cases which would build less documentation and undergo less handling.

The manilla folder is divided into two sections, and also features a mylar pocket which is used to store the case folder when the inmate is released. This allows for the more costly pressboard folders to be re-used.

Colour-coded alphabetical labels are used with this system, which employs open shelving and end-tab folders. In plain English, this means that the first two characters of the inmate's last name are encoded in coloured alpha stickers, which are placed on the bottom of the side end of the folder. When placed on the shelf, the files are grouped alphabetically and in colour by the first character of the surname, and then sub-grouped by the second character. This makes file retrieval easier and also reduces misfiling as it is easy to see a colour that is out of place on the shelf.

Special stickers are provided for use by the centres, replacing some of the dozens of coloured tags that were being used for a variety of purposes which never meant the same thing from centre to centre. The new stickers include abbreviations or words in order to make them meaningful for all. For example, "SA" and "SR" mean "actively suicidal" and "suicidal record". "DO NOT RELEASE" stickers can be used to flag the files of inmates with further charges pending, immigration or federal holds, and the like.

A review of the system will occur in December, 1984, at which time policy may be changed to resolve any problems that are occurring

province-wide. Individual centre's complaints or problems will be addressed only insofar as they identify issues of concern to the rest of the province's centres, as

this is after all a standard system.

An update on the system will appear in *The Informer* in the new year, once the six month audit has been completed.

## NETWORK/HARDWARE HELP DESK

### **Systems Support Branch**

In the past, Public Works, Supply and Services (PWSS) were totally responsible for supplying data processing services to all government department. Distribution of much of the hardware planning and installation responsibility to the Alberta Solicitor General, however, prompted a review of the procedures late last year.

Initial discussions took place to review the methods for ordering lines and equipment, identifying maintenance concerns, and handling trouble calls in a timely and comprehensive fashion.

Some problem areas identified included:

- application questions rather than communication problems were the higher volume calls to the PWSS Network Operation,
- long delays were being experienced in having a communication facility installed or changed, and
- there was a lack of knowledge by both Departments concerning the needs of the other.

The first conclusion reached was the recognition that Solicitor General should front-end all the trouble calls to eliminate application type problems being made to PWSS Network Operation.

The second item of priority was to have network performance and monitoring capability at the Solicitor General Network Trouble Desk.

Thirdly, a thorough review should be undertaken to establish an integrated communication network for all of the Solicitor General applications. This review was to be phased, with the major emphasis on the implementation of the new Motor Vehicle system across the province.

The fourth major consideration identified was the need to follow through with a reporting procedure which would ensure timely and effective corrective action by vendors.

The Hardware/Network Support Unit within SISD was organized to provide for communication and peripheral hardware support. This unit performed a complete loading analysis of the anticipated network to support MOVES and, with working assistance from Altel Data, a network was designed to provide a cost effective integrated Departmental network. The design allowed for phased implementation in roughly the following stages.

1. Thirteen Multi-dropped circuits to support the 11 major



MVD offices with 13 smaller issuers to balance the lines.

2. Fifteen Multi-dropped circuits to support the next 75 MVD offices and 10 community corrections offices.

Excess capacity was allowed in stages one and two to accommodate the current Correctional Centres when their equipment is updated to SDLC/SNA protocol.

3. Eight Protocol Converters (PCI's) were installed utilizing data route facilities where possible and supporting 48 MVD offices with dedicated access to the host.
4. Six PCI were installed allowing for 38 MVD offices and 45 community correction offices to have dial-up access to the central site.
5. One PCI was identified for Motor Transport Board and the Alberta Highway Patrol to have dial-up access from their current TWX equipment.

The long term of the design allowed for complete network expansion to full SNA/SDLC communication.

In order to satisfy the second issue, steps were taken to conduct an investigation into network performance and monitoring equipment. This review identified a number of possible solutions with the eventual selection of an Extra Smart system from Tesdata (Described in the June issue of *The Informer*). In addition, with the assistance of PWSS Central Computing Centre personnel, full access via NCCF has been provided. Also, in the network/hardware help desk area, an IBM 3290 screen has

recently been installed to simplify the monitoring of the entire data processing facility with several displays on one screen. Such software as **Omegamon** (a realtime software performance monitor for MVS operating system), **Smart** (a realtime monitor and diagnostic tool for VM/370), **UM/PE MON** (a realtime performance monitor for UM/PE), and **SDSF** (Spool Display and Search Facility for monitoring MVS Batch Initiators and Spooled output) are utilized for the monitoring of the facility.

The Help Desk now also started using the Network Info Management System in conjunction with PWSS to monitor and track system/network trouble calls. The personnel at the S/G Help Desk will enter network problems into the system and this will be immediately known to the Central Network Operation Centre. As the problem is resolved or moved out to the applicable vendor, the S/G Help Desk will have on-line access to the status of the problem. Historical information on types of problems, their solutions and elapsed times to have the user's problem corrected will be available.

In the last year, the Department has gone from a shared network supporting the eleven Correctional Centres and the terminals in Edmonton Head offices to a network of approximately 90 lines designed to provide on line access for approximately 200 Motor Vehicle issuing offices, the Correctional Centres, Personnel systems in Calgary, Edmonton and the Staff College, the Financial system in Edmonton and 45 community corrections offices. In addition, the network currently is supporting access for 29 Highway Patrol offices and 31 Motor Transportation Branch offices. The

network also supports the CPIC interface and other external users.

During this expansion period, much assistance was received from Central Computing Centre and the vendors of Altel-Data and Mohawk Data Sciences. While the Help Desk is

still in its "teething period", we feel confident that with the technical aids we have installed and our dedicated personnel, we will be able to provide a solid and cost effective communication network supported with reliable equipment.

### WHO KNOWS WHERE THE TIME GOES? DOWN THE DRAIN, MOSTLY.

Carol Fletcher  
Adapted from Savvy Magazine

I've never minded working hard, but somehow I had imagined that all my fourteen-hour days might lead, if not to great wealth and power, at least to an occasional accomplishment - or a Friday night on the town. The high point of my Friday nights is the arrival of the office cleaning woman. Considering how busy I am, it is impressive how little I get done. Take today, for instance:

- **7:55** The stench of burning plastic welcomes me as I open the office door. I turn on the lights, turn off Mr. Coffee, and exchange introductions with the temp who is replacing my vacationing secretary.
- **8:20** I am determined to finish that budget today, as soon I make a few phone calls. I dial Lou Cinario, a consultant who has neglected to return my last seventeen phone calls, and reach a receptionist who concedes, in an alarming act of candor, that Lou has not just stepped away from his desk but in fact retired a month ago.
- **8:25** I reach for the nearest stack of pink "While you were

out..." slips, and riffle through in search of a friendly name. Finding none, I berate the receptionist for taking incomplete messages: "Which Octavia Fentachelli was it? Did she sound angry?" The receptionist can't remember, so I decide to throw out the stack.

- **8:50** The eight-thirty departmental meeting is about to begin. I rush in just as staff members are starting to deliver their progress reports on the capital drive. None of us has done any work on the project, but everyone has done a lot of thinking about it, especially those who speak last.
- **9:55** I should not have left my office unattended. In my absence, a new crop of message slips have sprouted on my desk. Before I can look at them, my secretary staggers in, careening from the weight of the morning mail, which she sends tumbling over the sides of my in-box. I leaf through it: a paper from head office, its conclusions cleverly encrypted in flow diagrams; a



six-page resume from a college student; some airline tickets for a cancelled trip; a newspaper clipping on which the executive director has scribbled, for no discernible reason, "Is this for us?" Accounting has sent a note warning that I will receive no more cash advances unless I submit that missing expense report from July 1975. I pull the expense form from my desk, enter the date and total sum, and begin working backward. I am one lunch short of the total when the secretary announces that Carl Sheppard is returning my call.

- **10:45** I ask Carl what he thinks of the Heritage Fund. He says he needs to know numbers. He suggests we talk scenarios. He requests a memo. When it dawns on me that Carl has never heard of the Heritage Fund, I get him off the phone.
- **11:10** I roam the hall, on the prowl for advice. Everyone is on the phone except Don, who is furiously puffing cigar smoke through his suite to discourage visitors, so I return to my office.
- **11:20** My secretary is deep in an interview with Nancy, the computer consultant who is helping us choose an office automation system. Nancy is asking the secretary detailed questions about her job. The secretary apparently has not mentioned that she is a temp and has been working for the department for exactly three and a half hours. She does mention, however, that I have an eleven-fifteen meeting on the new benefits package.

- **11:50** The meeting plods on, as Joe delivers an eloquent argument for more dental coverage. I draw a picture of the Director. I draw a picture of Joe. I figure out how much will be in my pension in 2044.
- **12:30** Back at my desk, I begin returning calls. Everyone is either on another line or in a meeting. I leave messages for 29 people to call me back immediately, then leave for lunch.
- **2:00** Twenty-nine message slips are waiting on my desk when I return from lunch, but before I can answer them, I am summoned to a conference call. My colleague next door and I are the only people who can be located for the call. We chat while the other participants are rounded up. As each new person joins the conference call, the voices grow softer; after 20 minutes, all nine participants are on the line and no one can be heard. I set the receiver gently on my desk and sneak off to the photocopy room.
- **2:40** The photocopy repairman wants to sell me a trench coat. It is appalling that people are allowed to sell merchandise in the office. The coats are probably hot. What's more, they don't fit. I'm trying one on in the women's room when I run into Beth who reminds me of the annual report meeting.
- **2:50** The director of development seems disappointed with our 1983 annual report, which she terms "that sloppy mess thrown together at the last minute." She announces that this time round we will begin



work on the annual report a year in advance. This means we will have twelve months of meetings about the 1984 annual report before throwing it together at the last minute.

- 3:50 The afternoon mail arrives, complete with memos on this morning's meetings. I skim them to see if I am mentioned, then grab a cup of coffee and begin my relaxation exercises. After several deep breaths, I have forgotten the day's petty annoyances, and my mind drifts to deeper questions. What is life all about? Have I chosen the right career? Will I ever be happy? I am a nervous wreck when Steve knocks and beckons me to the conference room for Jim's birthday party.
- 4:05 We all sing "Happy Birthday" to a mortified Jim. Cake and Dixie cups are passed out cheerfully, but the room soon falls silent. A fellow from accounting offers a stale joke, which triggers inordinate laughter, during which

time everyone making more than \$20,000 a year slips out of the room.

- 4:20 I realize in a panic that my secretary is leaving in ten minutes, and frantically call for a night temp to type that budget that I am about to write. Then Colleen calls to remind me that we promised to take Easton out for a drink; I grab my jacket and run, passing the arriving temp on my way out the door.
- 7:20 Fast food in hand, I return to the office. I try to focus on numbers through a fog of spritzers and the murmur of the night temp on the nearby phone.
- 10:30 The temp is asleep, the office still. I wonder grumpily whether I should finish the rest of the budget tomorrow. Suddenly the door creaks open and I look up heartened. "Trash basket? Sure, it's right here. How are you tonight?"

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\* NOTE: \*  
\* The LIBRARY BULLETIN by Alberta Public Works, Supply and Services \*  
\* is available through the Solicitor General Library. \*  
\* \*  
\* This Bulletin contains a listing of all new books and magazine \*  
\* titles on data processing and computers available through the \*  
\* PWSS Library. If you are interested in this area, please browse \*  
\* through the Bulletin and our Librarian will be very happy to \*  
\* order any articles you need. \*  
\* \*  
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## LIBRARY NEWS & REVIEWS

Information Management Branch - Library Services

5th Floor, Melton Building (427-3421)

### Some Recent "Best Sellers" on Time Management.

- Managers can avoid wasting time: to avoid job-related anxiety, managers often spend time on unproductive work by Ronald Asnkenas. Harvard Business Review, May/June 1982, p.98-104.
- Getting Things Done: The ABC's of Time Management by Edwin C. Bliss - Succinct, on-the-job pointers.
- How to save time and avoid running in circles Criminal Justice Journal. May 1983, p.6-7. - Tips from Michigan Association of Chiefs of Police.
- In today, Out Today: How to do your job faster. (1982) by M.H. Smith - A time management handbook for secretaries and other office workers.
- How to get control of your time and your life by Alan Lakein - Personal and business time management, goal planning, establishing priorities, organizing daily schedules... tips for building willpower, keeping on target, defeating unpleasant tasks...
- Total Time Management by Robert Moskowitz - This set includes a workbook and eight cassette tapes. It is produced by AMACOM, a division of American Management Association.

### New Magazines

- Popular Computing

The library now subscribes to this lively and informative magazine on new developments and trends related to computing. Articles are written for all levels of computer experience and offer advice on a wide variety of topics as well as providing assessments of new hardware and software choices available on the market.

- Working Women

This magazine, geared specifically for employed women, has features relating to careers, challenges in the home and in the workplace, and new developments in the workplace.

## THE YOUNG OFFENDERS INFORMATION SYSTEM - UPDATE

### Application Software Branch

Prior to and following the April proclamation of the new Young Offenders Act, the Alberta Solicitor General has been very active in defining and developing components of a computer-based Information System. The overall strategy being followed is a three phased approach, summarized briefly as follows:

- Phase 1 - the development of a central computerized index of all young offenders under the supervision of the Alberta Solicitor General.
- Phase 2 - the development of an Administrative System to address the Resource Management functions necessary to administer both the Y.O. Act and the various Y.O. facilities in the province of Alberta. This phase will address the requirements of the Federal-Provincial Cost Sharing Agreement.
- Phase 3 - the development of the complete case management information on the young offender to supplement the computerized index developed in Phase 1 and to complement the financial and other resource data assembled from Phase 2. Further, this phase will address the many potential interfaces with other Alberta government departments supervising young offenders as well as any Federal central repositories or systems.

For each phase of the overall strategy, the following activities have taken place.

Phase 1 - a case tracking system has been built to maintain a central index of all offenders under the supervision of Alberta Solicitor General. This includes all offenders in the Detention Centres, whether in Remand or open or close custody status, and in Community Corrections for those offenders being supervised in pre-disposition or post-disposition programs. Records are maintained for the offender in terms of identification, aliases, charges, movements and, where applicable, incarceration. Further, a record is kept of all court ordered reports prepared on the individual. All this information is maintained for historical purposes, subject to the records destruction provisions of the Young Offenders Act. The records destruction date is calculated automatically by the system and exception reports prepared to indicate the imminent destruction dates are made for the provincial Director of Young Offenders.

There has been a great deal of activity in this phase in stabilizing the administrative procedures both within the Young Offender facilities and in the communication with the Courts. In addition, the training activity has proven to be a major task. The training has had to concentrate on the criminal justice procedures as well as the interface with the computer system.

Specifically, the system is in operation in four sites: Edmonton Remand/Detention, Edmonton Youth Development, Strathmore Youth Development, and Edmonton Court Intake. Calgary Court Intake and Lethbridge Community Corrections



District office are both in final stages of training. The remaining sites at Calgary Detention, Red Deer Community Corrections, Peace River Community Corrections and St. Paul Community Corrections are scheduled for training by mid-October. Also, at this time, plans are made to install display phones in all the remaining community corrections offices. These display phones will allow for dial-up capability into the system and are geared to the lower volume sites. Data from any site not currently on-line into the network are being entered in batch mode by Regional Services staff.

**Phase 2** - as activity in Phase 1 concentrates on the post implementation support, activity in Phase 2, the Administrative Study, is now growing. The proposal to develop an Administrative system for young offenders was accepted for funding under the Systems Development Contribution Agreement. A formal agreement has been signed and a project development work plan drawn up and discussed internally within the Alberta Solicitor General. The scope of this system was outlined in the June issue of *The Informer* and, in general terms, a study will be undertaken to examine all of the administrative activities and functions necessary to support the Young Offenders Act. This will include both a review of the requirements of the Cost Sharing Agreement for Young Offenders as well as a review of all the financial and administrative functions that take place in a Young Offender facility or Community Corrections office, including office automation activities. As identified, the workplan is now being finalized and the project team members assembled for a mid-October start date.

The implications of the Cost Sharing agreement have created work in two areas. First, the agreement in principle has been signed and the Finance Division of Alberta Solicitor General has been developing and finalizing the agreement for ministerial approval. In conjunction with this, the inmate tracking system in Phase 1 of the overall strategy is being examined to ensure that the precise cost sharing elements of offender supervision are being captured in order to provide the offender days information in the supervision cost computation. The Administrative Study is expected to finalize and specify the requirements of both the offender days and cost elements in the cost sharing calculations.

**Phase 3** - work was not scheduled in this phase until the completion of the Administrative Study. However, activities in other Government of Alberta departments has brought forward some activities designated for this phase. At this time, the Alberta Attorney General is starting on an assessment of the requirements for a Youth Court System. Part of this activity will include a definition of the potential interface between the Courts and Community Corrections facilities within the Alberta Solicitor General. Therefore, a team from Solicitor General will participate in the definition of this possible interface.

In addition, preliminary discussions have been held with Social Services with respect to the ongoing upgrades being made to their Client Index system in Child Welfare. It is possible that some sharing of information may be made between the Young Offender system progressively under development within the Solicitor General and the Social Services system. No

definite plans are in place at this time.

In summary, there are many ongoing activities in Young Offenders as well as many anticipated activ-

ities. The phases approach to the development of a comprehensive Young Offenders Information System indicates the activities will continue through 1985 and 1986.

## AN OVERVIEW OF SISD PROJECTS

### CORRECTIONS PROJECTS

Much of the activity over the past several months has been concentrated on the post implementation support of the Young Offenders Tracking System. The system is progressively being implemented in the Community Corrections offices at this stage, having already been implemented in the Detention/Custodial facilities. Pilot testing of display phones is taking place prior to their installation in the smaller Community Corrections offices.

It is the intention in April 1985 to move the Young Offender Tracking System to the Solicitor General mainframe. Planning has started for this conversion which will also incorporate the set up of research provisions as well as the loading of the Adult cases in Community Corrections.

A proposal has been issued for an upgrade to the Inmate Trust Accounting System to automate the calculation and posting of the WorkPay/Incentive Pay. In particular, this covers the inmates or young offenders who do some type of work for a certain amount of pay. This will form a new subsystem to interface with the existing computerized trust account and general ledger systems.

A further upgrade is being developed to the adult tracking system

(COMIS) interface with the Attorney General Court System (CAP). This upgrade will have COMIS notify CAP whenever each individual warrant has been satisfied for an inmate who is serving a mixture of concurrent and/or consecutive sentences.

Preliminary discussions have been held with Alberta Social Services regarding the potential sharing of data between the Child Welfare systems in Social Services with the Young Offender systems in Corrections.

A records management inventory has been initiated in the Regional Services Branch as a preliminary step to the scheduled office systems study. This inventory identifies active and inactive files within the branch, documents filing and access requirements, and assists in the development of subject classification and indexing.

An Inmate Case File project was implemented at all ten adult Correctional Centres. Orientation and training was provided to senior staff, program staff, and records staff. This project is expanded upon elsewhere in **The Informer**.

In the Departmental Librarians' role of providing functional direction to the Library program



within Correctional Services Division, a yearly program status report was submitted to the Assistant Deputy Minister detailing issues and program enhancement recommendations.

The office systems study within Correctional Centres and Community Corrections offices is being integrated with the Resource Management system project currently being initiated at selected Adult and Young Offender centres. This will ensure that office and systems requirements will be ad-

dressed by integrated solutions wherever possible.

Information Centre staff have been assisting the Regional Services Unit of the Corrections Division in the preparation of a monthly computer graphics package which presents data pertaining to the average daily population held in provincial correctional centres.

A total of nine data extractions were done from COMIS in response to information requests received during the last three months.

### MOTOR VEHICLES PROJECTS

MOVES is in production. The project which was conceived back in 1978, and came together as a final project effort in 1981, has been turned on and is accepting real Motor Vehicle data. The balance of effort is shifting from the systems development group to the Motor Vehicle Operations group, and we are at the stage of transition where both groups feel intense pressure. The Operations people are working very hard to catch up on the one month backlog created by the update cycle on the old system, while the project team is working hard to maintain a stable system and respond to bugs found in the application.

The system has proven to be very stable to date. The functionality has received a positive reaction from the field and the down-time has been minimal, especially considering the fact that the system is new and very large. The main problem so far has been response time, and this was predictable since it is so difficult to simulate a 'real' load and tune around it.

We have made some good strides in tuning the system, as the load has increased approximately three hundred per cent on the network and database within the first two weeks of operation. Tuning will continue to be the main project effort for the next few months.

The system was brought up initially with the 24 large offices, which handle about 70% of the total provincial volume of business. As soon as these offices have cleared their backlog, the next 75 offices (25% of total volume) will be brought on, followed by the final group of about 100 offices.

The file conversion effort from the old system took about three days for unloading and loading, with about two more days allowed for 'clean-up' and office inventory checking.

The first 'vehicle renewal' cycle on the new system is now in progress, with mailing of notices happening in the last week in September. This will be the first renewal taking place since the



conversion from an annual to a monthly staggered renewal process.

The June, July, and August MVD cash transaction log reports were recently compiled and distributed to the field offices.

Each year, the Transportation Safety Branch of Alberta Transportation supplies our Department with the names of drivers involved in fatal collisions in Alberta during the year. The driving records of Alberta drivers are then extracted from the Motor Vehicle files and previous conviction, suspension and accident information is compiled. The report on "Drivers Involved in Fatal Collisions in Alberta During 1983" is

now complete. The feasibility of conducting a related study to compare the driving records of "fatal accident" drivers to the driving records of the general population is currently being considered.

During the past three months, the Information Centre responded to three requests from the Motor Vehicle files.

Enhancements were made to the Driver Control Board monthly statistical reports. Data capture procedures and production controls are currently being investigated to improve overall accuracy and timeliness of management reporting.

## LAW ENFORCEMENT PROJECTS

Research Consulting staff have been supporting the Law Enforcement Division in the development of a proposal for establishing a provincial data base of information on the activities and resources of police departments and R.C.M.P. units in Alberta.

A report is being prepared for LED on selected issues related to homicide in Alberta.

The establishment of a satellite records office within the LED was finalized. Operating procedures were developed and documented for use within LED, as well as within possible future satellite offices. This is one step in support of the Department's strategy in distributing and decentralizing information.

The 1984 Inventory of Crime Prevention Programs in Alberta has been completed and distributed to

law enforcement groups throughout the province.

Every quarter, each Highway Patrol Regional Office and Unit Office receives statistics pertaining to their enforcement and general activity over the three month period this year compared to last year. The April-June Alberta Highway Patrol statistical report was recently compiled.

A series of courses are currently being held for members of the AHP at the S.G. Staff Training College. A member of the Information Centre has been a guest speaker at these sessions, informing the AHP staff of the rationale and method for completing the daily activity logs.

Between July and September, nine information requests were completed by extracting data from POLIS.

## DEPARTMENTAL SUPPORT PROJECTS

The Alberta Solicitor General is progressing with the implementation of the new Payment of Accounts System. The department is now planning to have the data entry of purchase orders and invoices distributed to a correctional centre (Lethbridge) to act as a "pilot" site in determining the feasibility of a more complete distribution of the data entry functions. From a technical standpoint, the department has been able to address these applications utilizing the existing equipment and network in place for the Corrections systems.

The department-wide Office Automation Project is currently in Detailed Needs Analysis phase. The initial study location of the Minister's office and the Correctional Services offices on the 15th Floor, A.E. LePage Building are near completion. Departmental areas to be studied next include:

- Deputy Minister Office
- ADM Correctional Services
- ADM Motor Vehicles
- Law Enforcement Division
- Correctional Services - Calgary

As indicated earlier, the office system review of correctional centres and community corrections offices is being initiated in conjunction with the Resource Management system project currently being undertaken.

A hardware and software upgrade to the word processing configuration within Melton Building has been implemented to improve the overall performance and functionality of

the system. The upgrade includes an expansion of capacity, replacement of all printers, the introduction of a higher speed draft printer and installation of additional workstations. Additional office system software was also installed including spreadsheet, report writer and data management applications for piloting within selected offices. Orientation, training, and problem reporting enhancements were also provided.

A word processing analyst position is currently being recruited both to provide special skills to the office automation study in the analysis, selection, and implementation of word processing and to be an in-house resource to support the current utilities of word processing within the Department.

Microcomputer based technology is currently being installed in the Information Centre for access by all department staff. Specific hardware that will be installed within the next several weeks include:

- MDS Hero
- IBM XT
- COMPAQ portable
- Apple IIe

Spreadsheet, graphics, database management, word processing, and several programming language software packages have been acquired for the purposes of training and orientation, prototyping and application development.

The Records Management and Office Automation Unit actively participated in the prototype development of the government-wide

Automated Records Management System (ARMS) utilizing fourth generation language tools.

A project to determine the requirements of a Learning Resource Centre at the Staff College is being undertaken by the staff of the Departmental Library Services Unit.

Library Services has recently completed a project indexing all government documents, and uncata-

logued materials by KWOC. As well, a KWOC index of the Central Library collection was distributed to Staff College and the Regional Librarians.

A project is currently being initiated by Research Consulting Unit to familiarize department research staff with graphics capabilities of the Statistical Analysis System (SAS) utilized within the department.





### ANSWERS TO "MINDTWISTERS"

1. The puzzlist interrupted with the remark, "Excuse me, sir, but if you are going to insist on pedantic accuracy, the only conclusion one may draw is: At least one sheep in Scotland is black on at least one side at least part of the time."
2. No one shaves the barber, because she is a woman.
3. (b) Epimenides is a liar. This old puzzle is often given as an example of a paradox,

but the version presented was not a paradox. If the assumption is made that Epimenides is a truth teller, then his statement produces a contradiction; hence, Epimenides is not a truth teller. If the assumption is made that Epimenides is a liar, then his statement "All Cretans are liars" is false. This means there is at least one Cretan who tells the truth, and we have no contradiction.

### FAMOUS LAST WORDS

We've excerpted the last words from each line in the first stanza of six well-known songs. Can you supply the titles?

- |   |                                      |                                      |
|---|--------------------------------------|--------------------------------------|
| 1. down<br>down<br>down<br>down<br>lady           | 2. money<br>show<br>ready<br>go!     | 3. house<br>Mars<br>planets<br>stars |
| 4. morning<br>chime<br>stopper<br>whopper<br>time | 5. palaces<br>roam<br>humble<br>home | 6. ocean<br>sea<br>ocean<br>me       |

### FOR YOUR INFORMATION

Offences which are reported to the police and found to have occurred are called actual offences. Offences can be cleared (or solved) by charge or otherwise. An actual offence is cleared by charge if a charge is laid by the police against at least one person. When an offence is cleared otherwise, there must be enough evidence to support the laying of a charge against an identified offender, but circumstances dictate that a charge not be laid. These circumstances include such things as the death of the offender or a witness, an extra-departmental directive, committal of the offender to a mental hospital, police discretion, diplomatic immunity, refusal of a complainant to prosecute, the offender is already serving a sentence, or the offender is in a foreign country.







